



**AGENDA**  
**RIO DELL PLANNING COMMISSION**  
**"VIRTUAL" SPECIAL MEETING**  
**WEDNESDAY, JULY 1, 2020 – 6:30 P.M.**  
**CITY HALL COUNCIL CHAMBERS**  
**675 WILDWOOD AVENUE, RIO DELL**

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**WELCOME....** *Copies of this agenda, staff reports and other material available to the Commission are available at the City Clerk's office in City Hall, 675 Wildwood Avenue and on the City's website at [www.cityofriodell.ca.gov](http://www.cityofriodell.ca.gov). Your City Government welcomes your interest and hopes you will attend and participate in Rio Dell Planning Commission meetings often.*

**SPECIAL PUBLIC HEALTH EMERGENCY ALTERATIONS TO MEETING FORMAT  
CORONAVIRUS (COVID-19)**

Due to the unprecedented public health threats posed by COVID-19 and the resultant need for social distancing, changes to the City Council and Planning Commission format are required. Executive Order N-25-20 and N-29-20 from Governor Gavin Newsom allow for telephonic Planning Commission meetings and waives in-person accessibility for Planning Commission meetings, provided that there are other means for the public to participate. Therefore, and effective immediately, and continuing only during the period in which state or local public health officials have imposed or recommended social distancing measures, the City Council and the Rio Dell Planning Commission will only be holding "virtual" meetings.

**Public Comment by Email:**

In balancing the health risks associated with COVID-19 and need to conduct government in an open and transparent manner, public comment on agenda items can be submitted via email at [publiccomment@cityofriodell.ca.gov](mailto:publiccomment@cityofriodell.ca.gov). Please note which project the comment is directed to and email your comments to the above email address. The City Clerk will read comments out loud, for up to three minutes and provide an immediate response to the comment(s).

**Zoom Public Comment:**

When the Chair announces the agenda item that you wish to comment on, call the conference line and turn off your TV or live stream. Please call the toll free number **888-475-4499**, enter meeting ID **987-154-0944** and press (\*) 9 on your phone – this will raise your hand. You will continue to hear the meeting on the call. When it is time for public comment on the item you wish to speak on, the Clerk will unmute your phone. You will hear a prompt that will indicate your phone is unmuted. Please state your name and begin your comment. You will have 3 minutes to comment.

A. CALL TO ORDER

B. ROLL CALL

C. PLEDGE OF ALLEGIANCE

D. CEREMONIAL MATTERS

- 1) 2020/0701.01 - Accept Resignation from Planning Commissioner Marks effective June 25, 2020 **(ACTION)** 1

E. CONSENT CALENDAR

- 1) 2020/0701-02 - Approve Minutes of the June 23, 2020 Regular Meeting **(ACTION)** 2

F. PUBLIC PRESENTATIONS

*This time is for persons who wish to address the Commission on any matter not on this agenda and over which the Commission has jurisdiction. As such, a dialogue with the Commission or staff is not intended. Items requiring Commission action not listed on this agenda may be placed on the next regular agenda for consideration if the Commission directs, unless a finding is made by at least 2/3rds of the Commission that the item came up after the agenda was posted and is of an urgency nature requiring immediate action.*

***Due to the COVID-19 situation public comment must be submitted via email at [publiccomment@cityofriodell.ca.gov](mailto:publiccomment@cityofriodell.ca.gov) no later than one hour prior to the start of the meeting. Your comments will be read out loud, for up to three minutes.***

G. SCHEDULED MATTERS/PUBLIC HEARINGS/STUDY SESSIONS

- 2) 2020/0701.03 - Approve Resolution PC 148-2020 Approving a Cannabis Activities Conditional Use Permit for Marathon 102, LLC for 54,610 square feet of Mixed-Light Commercial Cannabis Processing, Packaging and Distribution (File No. 205-111-075; Case No. CUP-CCLUO-20-04) 10

H. STAFF COMMUNICATIONS

I. ADJOURNMENT

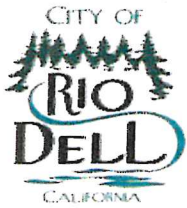
In compliance with the American with Disabilities Act (ADA), if you need



Special assistance to participate in this meeting, please contact the Office of the City Clerk at (707) 764-3532. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to assure accessibility to the meeting.

***The next Regular Planning Commission meeting is scheduled for Tuesday, July 28, 2020 at 6:30 p.m.***





## PUBLIC NOTICE PLANNING COMMISSION NOTICE OF COMMISSION VACANCY

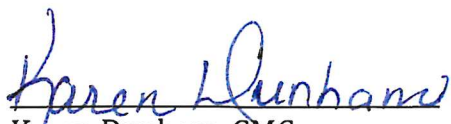
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**NOTICE IS HEREBY GIVEN**, that one (1) vacancy exists on the Rio Dell Planning Commission. The City of Rio Dell is soliciting applications from those who wish to be considered to fill one (1) position as **Planning Commission Alternate** the remainder of a 3-year term ending **December 31, 2022**. The Planning Commission consists of five (5) members and one (1) alternate member who are residents of the City of Rio Dell. Regular meetings are held on the **4th Tuesday of each month at 6:30 p.m.** in Rio Dell City Hall Council Chambers.

Applications may be obtained at and returned to:

City of Rio Dell  
Karen Dunham, City Clerk  
675 Wildwood Ave.  
Rio Dell, CA 95562

Applications must be received by **5:00 P.M. Thursday, July 16, 2020**. The new Commission appointment will be made at the **July 21, 2020** regular meeting of the Rio Dell City Council. Further information may be obtained by contacting the City Clerk's office at 764-3532 or by e-mailing the City Clerk at [dunhamk@cityofriodell.ca.gov](mailto:dunhamk@cityofriodell.ca.gov).

  
Karen Dunham, CMC

6-25-20  
Date

**RIO DELL PLANNING COMMISSION  
REGULAR MEETING MINUTES  
JUNE 23, 2020**

**CALL TO ORDER**

Commissioner Angeloff called the regular “virtual” meeting of the Rio Dell Planning Commission to order at 6:35 p.m.

Present were Commissioners Angeloff, Kemp, Marks, Millington, and Wilson. Also, in attendance was Planning Commissioner Alternate Arsenault.

Others present were Community Development Director Caldwell and City Clerk Dunham.

**CONSENT CALENDAR**

Planning Commission Chair Angeloff asked if any Planning Commissioner or member of the public had any questions or corrections to the minutes as presented. There were no comments.

Approve Minutes of the April 28, 2020 Regular Meeting

Motion was made by Marks/Millington to approve the minutes of the April 28, 2020 regular meeting as submitted. Motion carried 5-0.

**PUBLIC PRESENTATIONS**

None

**SCHEDULED MATTERS/PUBLIC HEARINGS/STUDY SESSIONS**

**Adopt Resolution No. PC 147-2020 Approving the Rio’s Diamond Farms Cannabis Activities Conditional Use Permit (CUP) for 32,000 square feet of Mixed-Light Cannabis Cultivation and 1,000 square foot Nursery (File No. 205-031-059; Case No. CUP-CCLUO-20-03)**

Community Development Director Caldwell provided a staff report recommending approval of a Conditional Use Permit (CUP) for 32,000 square feet of mixed-light cannabis cultivation and a 1,000 square foot nursery. He said that the project also includes the permitting of a facility for drying, curing, harvest, storage, processing, and packaging.



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He noted that the property is zoned Rural (R) and the proposed use is allowed within the zoning district, complies with all other applicable provisions of the zoning code and is consistent with the general plan.

Community Development Director Caldwell continued with review of the Site Plan, the Plan of Operation and Performance Standards.

No adverse comments were received from the referrals that were sent out with the exception of the Rio Dell Fire Protection District. They requested a hammerhead turn-around area near the residence and a dedicated 5,000-gallon water storage tank and wharf hydrant. The project was conditioned accordingly and with that, the RDFPD had no objections to the activities. The applicant's also secured letters from the neighbors stating that they had no objections to the proposed project.

Community Development Director Caldwell explained that the applicant's have requested an exception to the cannabis regulations to allow hoopouses as opposed to commercial securable and lockable greenhouses, and an exception to the carbon filter odor control requirements. Their proposal included installing cyclone fencing around the hoopouses for security.

Commissioner Millington referred to the Property Diagram on page 21 of the packet and noted that the directions to the property are incorrect. The directions were to turn left from Wildwood Ave. onto Monument Road rather than right.

Community Development Director Caldwell pointed out that most of the neighbors already have cannabis activities occurring without the benefit of having a permit so staff is pleased to see applicants obtaining permits. He noted that the Rural zoning designation allows for general agricultural uses.

He referred to the Conditions of Approval and said that all of the conditions must be met prior to commencement of the cannabis activities.

Community Development Director Caldwell noted that the Performance Standards as presented apply to all cultivation operations and said that the proposed hoop houses meet the required setback requirements of thirty (30) feet from property lines and 300 feet from adjacent residences. In addition, the operations would only be conducted by family members so there would be no notable increase in traffic.

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He said that hoophouses are considered temporary so they are exempt from building permit requirements (Section 105.2 of the California Building Code).

The applicant estimated average water usage of 240,000 gallons per year for cannabis irrigation and proposed using municipal water to meet agricultural needs. In addition, they identified an emergency water source.

Community Development Director Caldwell reported on an Ex Parte communication he had with Commissioner Marks related to the type of material used for the hoophouses.

Discussion continued related to maintenance of the hoophouses.

Community Development Director Caldwell explained that the project could be conditioned to require that the property remain tidy and well-maintained with perhaps two (2) site visits; one right after planting and one when the plants are flowering. The Commission could then convene at a meeting and consider phasing-in from hoophouses to greenhouses.

Commissioner Marks commented that in reference to hoophouses, she was a little concerned about going from greenhouses with requirements to hoophouses with no requirements. She expressed concern about water, electricity and drainage and suggested establishing some boundaries for hoophouses.

Community Development Director Caldwell explained that the Commission could establish conditions for hoophouses but if adopted, those conditions would apply to everyone.

Commissioner Marks questioned whether neighbors would come forward requesting hoophouses if the Commission approves the exception for this applicant.

Commissioner Millington pointed out that what is different about this location is that it is totally invisible from the rest of Rio Dell which should have some bearing on the Commission's decision.

Commissioner Wilson referred to the Agricultural Water Use contained in the Operations Manual and felt that the month of April is typically wet whereas the month of October is dry.



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Alternate Commissioner Arsenault questioned the use of municipal water and noted that unlike the Humboldt Rio Dell Business Park (HRDBP), there is no well as a backup water supply in the event of a drought.

Community Development Director Caldwell explained that the City's wells at the HRDBP actually can provide water to the Dinsmore Plateau and that the project referral was sent to the Water Superintendent and that he had no concerns related to water demands or transmission. He noted that a previous developer on the Dinsmore Plateau increased the water capacity to the existing water tank. In addition, since hoopouses are not considered a structure, they would be allowed to drill a well.

Alternate Commissioner Arsenault said that it seems there are two sets of rules for hoopouses; one for the large commercial operators and one for these smaller operators.

Community Development Director Caldwell pointed out that when utilizing hoop houses, it is almost impossible to install carbon filters. He noted that fungus and mold is a problem in this area and hoopouses are effective because they allow air to flow through. Another point is that because of the vegetation around the property, the hoopouses will likely not even be seen by the neighbors.

Alternate Commissioner Arsenault said that he was not concerned about the smell but expressed concern that hoopouses would be allowed for commercial purposes but not for everyone.

Community Development Director Caldwell explained that they would be allowed provided setbacks requirements are met and that they would be allowed for any agricultural use, not just for cannabis cultivation.

Commissioner Angeloff commented that smell has always been a concern with regard to cannabis cultivation activities and the reason odor requirements were imposed is so that the smell doesn't drift into town. He said that he likes the fact that the neighbors have no objections to the activity and that he likes to see more commercial cannabis activity occurring in the City. He asked the applicant if this would be a temporary or permanent exception to the conditions of approval.

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Brandon Rivas, owner of the property said that they would like to start with hoophouses for a season or so to generate enough revenue to become professional, meeting all the City's requirements.

Community Development Director Caldwell said that one option for the Commission to consider would be to approve a phasing plan for the 32,000 square feet of cultivation. With a total of 17 hoop houses, the applicant could perhaps be given until year three to replace the hoop houses on site 1 with commercial greenhouse, followed by replacement of those in site 2 in two years with the final replacement of the remaining hoop houses by 2026. It would be at the discretion of the Planning Commission and if the applicant is unable to satisfy those conditions they could come back to the Commission requesting and extension.

Commissioner Angeloff suggested an annual review by the Commission.

Brandon Rivas agreed to a phasing plan.

Paula Pavlich and Christina Sundman from PR Professional Services spoke on behalf of their client and proposed that with the more professional greenhouses with filters and scrubbers the issue they have is with noise and biological concerns. She said that they would like to continue working with Community Development Director Caldwell on the specifications. She noted that it is a neighbor issue as well as biological habitat in the surrounding area so she wanted to caution everybody that those are areas of concern in moving forward. Again, they would like to continue to work with Kevin to provide additional details in moving forward.

Commissioner Marks said that she was happy that the neighbors agree with the proposed plan but if the Commission allows the hoophouses without any restrictions, others will propose the same allowance.

Commissioner Angeloff agreed and said that the conditions would apply to the Humboldt Rio Dell Business Park as well.

Community Development Director Caldwell pointed that in 2023 the State law changes and cannabis cultivation will no longer be restricted in size so as of now, it is uncharted waters. He expressed the need to protect small growers and pointed out that 32,000 square feet of cannabis cultivation as proposed would result in



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\$64,000 in annual revenue to the City. He said that 2023 is the date all small growers are concerned with.

Paula Pavlich commented that with regard to temporary or permanent status, they could provide a semi-annual or annual update to the Commission with a schematic of the hoophouses even though no building permit is required.

Commissioner Marks thought that it would be a good idea since the City doesn't have regulations on hoophouses.

Commissioner Angeloff proposed an annual review and submittal of a permanent plan of operation. If the Commission is educated to the point that these structures aren't as proposed the Commission would have the option to nullify the agreement.

Paula Pavlich said that they would welcome site visits.

Commissioner Millington asked for clarification that if the operations were performing well, that they could proceed without permanent replacement of the hoop houses.

Commissioner Angeloff suggested they be allowed to operate with the hoophouses with submittal of a permanent plan for eventual replacement with professional greenhouses.

Commissioner Kemp questioned the lack of a building permit requirements even if the hoophouses have electrical and mechanical in them.

Community Development Director Caldwell clarified that a building permit would be required if they proposed electrical or mechanical noting that they don't typically use regular grow lights but a type of patio light is often used. If they are not hard wired they would be exempt from building permit requirements under Section 105.2 of the California Building Code.

Commissioner Marks asked if the applicant's agents would be willing to include specifications and a materials list for the proposed hoophouses.

Paula Pavlich said it would be appropriate to work with the applicant and provide the specifications and materials list to the Commission.

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Commissioner Marks mentioned the quality of the plastic materials.

Paula Pavlich commented that they could document the materials to satisfy the concerns of the Commission and pointed out that the applicant is not looking to have sub-standard materials and said that the ultimate goal is to protect the growth of the plants and not jeopardize the crop since it is their revenue source.

Community Development Director Caldwell commented that he is not sure if the Commissioners knows the difference between 3 mil versus 6 mil plastic material.

He suggested a tour of the facility right after planting and another tour during the flowering stage of the plants so the Commission can get a sense of the odor.

Community Development Director Caldwell reviewed the suggested motion to include at least two site visits a year, submittal of a materials list regarding the hoop houses themselves and the ability for the Commission to modify the Conditions of Approval down the road.

Commissioner Angeloff suggested adding an annual plan review for more permanent greenhouses under a phased-in approach.

Motion was made by Commissioner Millington to adopt Resolution No. PC 147-2020 approving the Rio's Diamond Farms Cannabis Activities Conditional Use Permit for 32,000 square feet of Mixed-Light Cannabis Cultivation and 1,000 square foot including the recommended additions to the Conditions of Approval as outlined by Community Development Director Caldwell.

Community Development Director clarified the motion to include at least two site visits, one during early stage growth and one during the flowering stage to determine odor and to see the construction of the hoop houses, with one annual review by the Commission for consideration of a phased-in plan for commercial greenhouses. He recommended two site visits the first year then to consider a possible phased-in plan.

He said that with 2023 coming up there are a lot of people somewhat hesitant of making investments in the cannabis industry until they can figure out what's going on or at least until they have a great supply distribution chain.



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Motion was then seconded by Commissioner Wilson. Motion carried 5-0.

**STAFF COMMUNICATIONS**

Community Development Director Caldwell announced that he sent out an email to Commissioners regarding the possibility of holding a special meeting on Tuesday, June 30, 2020 to consider approval of a Conditional Use Permit (CUP) application from Marathon 102, LLC for cannabis cultivation activities at the Humboldt Rio Dell Business Park and asked commissioners to respond on their availability.

Commissioner Kemp confirmed his availability for the meeting on the 30<sup>th</sup>.

Commissioner Angeloff thanked the applicants for doing business in Rio Dell and said that he preferred the special meeting be scheduled for Wednesday, July 1<sup>st</sup> if possible.

Community Development Director Caldwell also reported on pending projects which included the following:

- Marathon 102 - Mixed-light greenhouses for commercial cannabis cultivation.
- Rio Dell Holdings - Modification to Subdivision Map approval and CUP's.
- Humboldt 454 - Modification of CUP to include cannabis distribution operations.

**ADJOURNMENT**

The meeting adjourned at 7:38 p.m. to the July 1, 2020 Special meeting.

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Nick Angeloff, Chair

Attest:

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Karen Dunham, City Clerk

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675 Wildwood Avenue  
Rio Dell, CA 95562  
(707) 764-3532



For Meeting of: July 1, 2020

To: Planning Commission

From: Kevin Caldwell, Community Development Director

Through: Kyle Knopp, City Manager

Date: June 24, 2020

Subject: Marathon 102 Cannabis Cultivation, Processing and Distribution Application  
Conditional Use Permit & Design Review  
File No. 205-111-074; Case No's. CUP-CCLUO-20-02 & CUP-DR-20-02

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**Recommendation:**

That the Planning Commission:

1. Receive staff's report regarding the proposed Conditional Use Permit;
2. Open the public hearing, receive public input, close the public hearing and deliberate;
3. Assuming that public testimony is substantially in support of the proposal, find that:
  - (a) The proposed use is allowed within the applicable zoning district and complies with all other applicable provisions of this title and all other City ordinances, including the applicable "Guiding Principles and Design Concepts" in Section 17.250.050(5) Rio Dell Municipal Code (RDMC);
  - (b) The proposed use is consistent with the general plan and any applicable specific plan; and

(c) The proposed design, location, size, landscaping and operating characteristics of the proposed activity are compatible with and will enhance the character of the neighborhood and community and future land uses in the vicinity; and

(d) The architecture, including the character, scale and quality of the design, relationship with the site and other buildings, building materials, screening of exterior appurtenances, exterior lighting and signing and similar elements establishes a clear design concept and is compatible with the character of existing or anticipated buildings on adjoining and nearby properties; and

(e) The site is physically suitable for the type, density and intensity of use being proposed, including access, utilities, and the absence of physical constraints;

(f) The proposed project will not create conflicts with vehicular, bicycle, or pedestrian transportation modes of circulation; and

(g) Granting the permit would not be detrimental to the public interest, health, safety, convenience, or welfare, or materially injurious to persons, property, or improvements in the vicinity and zoning district in which the property is located; and

(h) The Conditional Use Permit has been processed in accordance with the applicable provisions of the California Government Code and the California Environmental Quality Act (CEQA);

4. Adopt Resolution No. PC 148-2020 approving the Conditional Use Permit, subject to the Conditions of Approval, Exhibit A.

## **Background**

Marathon 102, LLC (Applicant and Operator) is requesting a Conditional Use Permit (CUP) to permit 54,610 square feet (sf) (canopy area) of mixed-light commercial cannabis cultivation. The cultivation would occur within eight (8) greenhouses built to a maximum of 93,800 sf. On-site processing (drying and trimming) is also proposed to occur within two headhouse(s), which are attached to and included in the square footage for the greenhouses. The headhouse will be divided into separate areas, including office space, utilities, processing, shipping, and storage areas. Additionally, the Applicant proposes the installation of four (4) cargo/shipping containers in accordance with Section 17.30.020(10) (Accessory Uses and Buildings) of the Rio Dell Municipal Code (RDMC), to be utilized for equipment storage space. The proposed location is adjacent to Greenhouse #8, in the eastern portion of the site. The cargo/shipping containers will not be placed within any easements or required setback areas, will not be stacked, and will be painted a solid neutral color to match the greenhouses.

Development on-site would be phased. See the Site Plan included as **Attachment 1**. The initial construction would include one of the greenhouses (Greenhouse #1), the easternmost



headhouse (Headhouse #1), and ancillary facilities (parking, on-site sewage disposal, rain garden, and landscaping). Over time the maximum proposed greenhouse square footage would be built. The estimated project phases are as provided below:

**Phase I:** Construction of Greenhouse #1, Headhouse #1, parking lot, landscaping, rain garden, and on-site septic.

**Phase II:** Construction of Greenhouse #2 (to commence approximately 5 months after completion of Phase I).

**Phase III:** Construction of Greenhouses #3 and #4 (to commence approximately 5 months after completion of Phase II).

**Phase IV:** Construction of remaining greenhouses (Greenhouses #5 through #8) and Headhouse #2 (to commence approximately 10 months after completion of Phase III).



**Figure 1**  
*Location Map*

*Marathon 102 Cannabis Cultivation, Processing and Distribution Application*

*Conditional Use Permit & Design Review*

*File No. 205-111-074; Case No's. CUP-CCLUO-20-02 & CUP-DR-20-02*

## Required Findings/Staff Analysis

### Section 17.35.030 Rio Dell Municipal Code (RDMC) Conditional Use Permits.

#### 1. Zoning Consistency

*(a) The proposed use is allowed within the applicable zoning district and complies with all other applicable provisions of this title and all other City ordinances;*

**Land Use:** The property is zoned Industrial Commercial (IC). The purpose of the Industrial Commercial zone is to provide for industrial and commercial uses. Section 17.30.195 the City's Commercial Cannabis Land Use Ordinance (CCLUO), allows commercial cannabis activities at the former Eel River Sawmill site, now known as the Humboldt Rio Dell Business Park with a Conditional Use Permit (CUP).

All cannabis applications for the required Conditional Use Permit requires the submittal of a completed application form, a Site Plan and a Plan of Operations which is required to include the following:

- A complete project description including the proposed use(s), hours and days of operation, number of employees, and the duration (temporary, seasonal or permanent) of the operation.
- The number of daily and/or weekly incoming and outgoing deliveries
- A Security Plan that addresses the cultivation, storage, processing of any cannabis, including but not limited to any video monitoring and commercial alarm systems.
- A Waste Management/Disposal Plan shall be submitted describing any produced wastes, including by-products, recycling, reusing, recovery, storage, diversion and handling and disposal.
- A description of the storage or use of any, fertilizers, pesticides, fungicides, rodenticide, or herbicides.
- A description of any discharge or emissions the operation will generate.
- A description of any noise level increase as a result of the operation.
- A description of the operation's use of public facilities such as roads, water or sewer



systems.

- A description of any proposed water source, storage, conservation and use; drainage, runoff and erosion control; watershed and habitat protection.

The Plan of Operations is included as **Attachment 2**. As the Commission is aware, the State must approve all cannabis activities and issue a State License prior to the operation commencing.

The buildings (greenhouses) must be evaluated for compliance with the development standards of the Industrial Commercial (IC) zone, including setbacks, lot coverage, building height, parking, design review, landscaping etc. as part of the Design Review approval.

The proposed cannabis activities are allowed in the Industrial Commercial (IC) zone with a Conditional Use Permit provided the activities comply with the pertinent Performance Standards in Chapter 17.30.195 of the Rio Dell Municipal Code (RDMC).

## **Performance Standards**

### **Cultivation**

Again, the applicant is proposing 54,610 square feet (sf) (canopy area) of mixed-light commercial cannabis cultivation within nine (9) greenhouses totaling 93,800 square feet.

### **Section 17.30.195(7)(b)**

*Greenhouse and Mixed-Light commercial cultivation of cannabis shall be conducted entirely within a fully enclosed, secure and lockable greenhouse and shall be conditionally permitted in the Industrial Commercial (IC) and Natural Resources (NR) designations located in the Sawmill Annexation area, and the Rural (R) designation located on the Dinsmore Plateau area pursuant to the "Greenhouse" and "Mixed-Light" cultivation area provisions described in Table 8.1 and subject to the conditions and limitations set forth in this Section and as deemed appropriate by the Planning Commission and/or the City Council.*

The City's limits for greenhouse and mixed-light are based on the State's limits. The applicant will be required to get a "Medium" (22,000 square feet) State license and backfill it with smaller licenses in order to cultivate the proposed 54,610 square feet of canopy.

As indicated above the greenhouses must be fully enclosed, secure and lockable. The project as proposed complies with this requirement and the project has been conditioned accordingly.

**Please refer to Exhibit A.**

**Performance Standards for all Cultivation Operations:**

- (a) No surface water withdrawals shall be allowed as part of any cultivation operations.
- (b) No Timberland Conversion Permits or Exemptions as approved by the California Department of Forestry and Fire Protection (CAL-FIRE) shall be used to facilitate the cultivation of cannabis.
- (c) The area of cannabis cultivation shall be located as shown on the application site plan, set back at least 50 feet from any property line in the Natural resource (NR) zone and 1000 feet from any School. Cannabis cultivation is declared to be development, subject to compliance with Section 17.30.110, Environmentally Sensitive Habitat Area's (ESHA's). For purposes of this section, where enhanced, reduced, or modified watercourse or wetland setbacks have been agreed to by the operator and the RWQCB under enrollment pursuant to NCRWQB Order No. 2015-0023 and/or preparation of a Water Resources Protection Plan, these may control and supersede any setback applied pursuant to Section 17.30.110.
- (d) Maintain enrollment in Tier 1, 2 or 3, certification with the North Coast Regional Water Quality Control Board Order No. 2015-0023, if applicable, or any substantially equivalent rule that may be subsequently adopted by the City of Rio Dell or other responsible agency.
- (e) For cultivation areas for which no enrollment pursuant to NCRWQB Order No. 2015-0023, is required by that Order, compliance with the standard conditions applicable to all Tier 1 dischargers.
- (f) The storage or use of any fertilizer, pesticide, fungicide, rodenticide, or herbicide shall comply with the manufacture's recommendations and regulations administered by the State Department of Pesticide Regulation. Hazardous materials and wastes from agricultural businesses are regulated by the Humboldt County Environmental Health Division, which administers the Hazardous Materials program as one of the Certified Unified Program Agencies (CUPA). This includes the application, inspection, enforcement, and reporting under the program requirements and standards set by the California Environmental Protection Agency (CalEPA).
- (g) Trucked water shall not be allowed as the primary water source. Water is to be sourced locally (on-site), except for emergencies. For purposes of this provision, "emergency" is defined as: "a sudden, unexpected occurrence demanding immediate action."



- (h) Carbon filter fans or equivalent superior filters/scrubbers shall be required to eliminate odor discharges to neighboring properties from cultivation and processing facilities.
- (i) A Waste Management/Disposal Plan shall be submitted describing any produced wastes, including by-products, recycling, reusing, recovery, storage, diversion and handling and disposal.
- (j) Those cultivators using artificial lighting for mixed-light cultivation shall shield greenhouses so that little to no light escapes. Light shall not escape at a level that is visible from neighboring properties between sunset and sunrise. Should the City receive complaints that the lighting is out of alignment or not complying with these standards, within ten (10) working days of receiving written notification that a complaint has been filed, the applicant shall submit written verification that the lights' shielding and alignment has been repaired, inspected and corrected as necessary.
- (k) Generators are only allowed as an emergency back-up power source. The noise produced by a generator used for cannabis cultivation shall not be audible from neighboring residences. The decibel level for generators at the property line shall be no more than 60 decibels.
- (l) Fuel shall be stored and handled in compliance with applicable state and local laws and regulations, and in such a way that no spillage occurs.
- (m) Electricity for Indoor and Mixed Light cultivation activities shall be provided by any combination of the following:
  - (i) On-grid power with 42 percent renewable source.
  - (ii) Onsite zero net energy renewable source providing 42 percent of power.
  - (iii) Purchase of carbon offsets for any portion of power above 58 percent not from renewable sources.
  - (iv) Demonstration that the equipment to be used would be 42 percent more energy efficient than standard equipment, using 2014 as the baseline year for such standard equipment.

Purchase of carbon offset credits (for grid power procured from non-renewable producers) may only be made from reputable sources, including those found on Offset Project Registries managed the California Air Resources Board, or similar sources and programs determined to provide bona fide offsets recognized by relevant state regulatory agencies.

- (n) Comply with all federal, state, and local laws and regulations applicable to California Agricultural Employers, including those governing cultivation and processing activities.
- (o) Comply with any special conditions applicable to that permit or parcel which may be imposed as a condition of the required Conditional Use Permit.

The applicants are requesting an exception to allow the use of generators for Phase 1. Staff is supportive of the request provided the following conditions are incorporated.

1. The generator(s) shall be enclosed to minimize noise levels.
2. Noise levels shall not exceed 60 decibels at any property line.
3. The generator(s) shall be Tier 4.
4. The applicant shall submit a signed agreement with PG&E regarding the installation of the needed infrastructure/power.
5. The applicant shall enroll in the County Hazardous Waste program. Hazardous materials and wastes from agricultural businesses are regulated by the Humboldt County Environmental Health Division, which administers the Hazardous Materials program as one of the Certified Unified Program Agencies (CUPA). This includes the application, inspection, enforcement, and reporting under the program requirements and standards set by the California Environmental Protection Agency (CalEPA). The applicant shall provide evidence of enrollment.
6. The use of the generator(s) is limited to 180 days.
7. Phase II will not be allowed to commence until adequate public (PG&E) power is provided to the site.

The proposed headhouses will include office space, storage, drying/curing area and a processing (trimming) area.

Other than the use of the temporary generator(s), the project has been conditioned on compliance with the above operational Performance Standards. In addition, the project is conditioned to comply with all State regulations including security provisions, operational standards, the storage of materials, including fertilizers pesticides, fungicides, packaging and labeling. **Please see Exhibit A.**

As previously discussed the buildings (greenhouses) must be evaluated for compliance with the development standards of the Industrial Commercial (IC) zone, including setbacks, lot coverage, building height, parking, design review, landscaping etc. as part of the Design Review approval.

## Industrial Commercial (IC) Development Standards

Table 17.20.110 of the RDMC identifies the setback, lot coverage/open space and building height requirements.

The front yard required setback is 10 feet and all other required setbacks are zero (0) unless abutting a residential zone. This particular parcel is required to have a 10-foot setback from the access easements on the south and west sides. The project as proposed complies with the required setbacks.

The Fortuna Fire Protection District has required a 20-foot travelway around the perimeter of the greenhouses for emergency access. The project has been conditioned accordingly. **Please refer to Exhibit A.**

The minimum open space requirement is 10%. The parcels total 4.88 acres or about 212,575 square feet. The proposed greenhouses total 93,800 square feet. The open space will be approximately 56%. The project complies with the required open space of 10%.

The maximum building height allowed in the IC designation is four (4) stories or 65 feet. The proposed greenhouses will be approximately 28 feet in height. The greenhouses comply with the maximum building height requirements.

**Flood Zone:** The parcel is located within the 100-year flood zone according to FEMA's Flood Insurance Rate Map (FIRM), Panel No. 1220. Please refer to Figure 2. The applicants are proposing to import fill to raise the building pad above the 100-flood zone.

The project is subject to FEMA's flood regulations (Title 44 Code of Federal Regulations, Section 61.7 and 61.8) which require that the first floor of the structure be located one foot above the Base Flood Elevation (BFE). As such a Flood Elevation Certificate is required, this identifies among other site features, the BFE and the elevation of the floor of the buildings. Staff has conditioned the project accordingly. **Please refer to Exhibit A.**



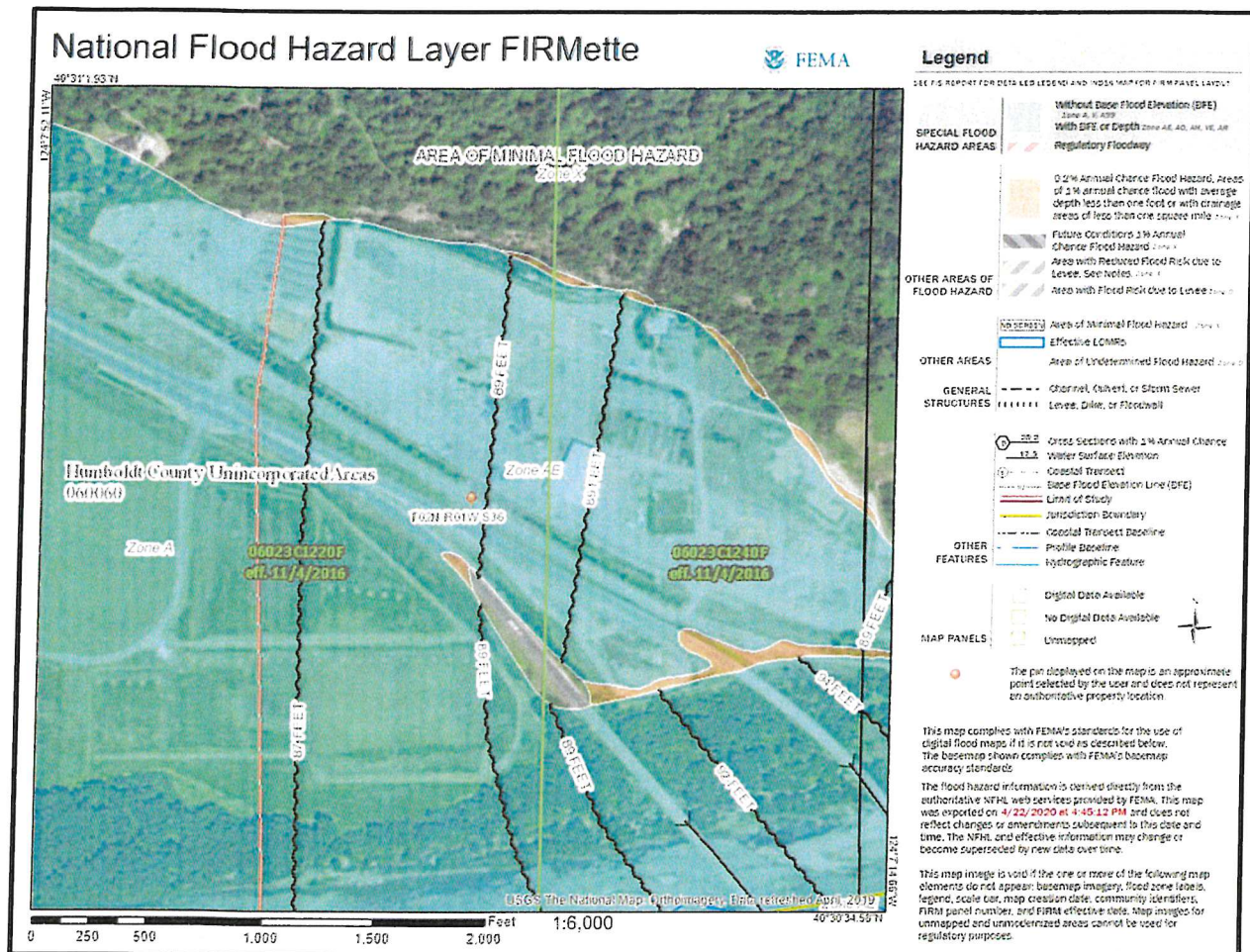


Figure 2

**Parking:** Section 17.30.180 of the Rio Dell Municipal Code (RDMC) identifies Parking and Loading requirements, including the required number of spaces, landscaping, lighting, surface requirements, striping, wheel stops, number of spaces, handicap spaces, bicycle and motorcycle parking and loading spaces. It must be noted that the Planning Commission previously identified the parking demand at one space for every 800 square feet for the Wendt/Greenheart Enterprises Conditional Use Permit. That project was different in that the building proposed was a metal building that could be used for other purposes. Greenhouses are not identified in the parking regulations. Warehouses require one space for every 500 square feet.

Applying the one space for 800 square feet would require 117 spaces (93,800/800). The applicant has requested a Parking exception based on levels of anticipated use pursuant to Section 17.30.220(5) of the RDMC. Below is a portion of the Plan of Operation regarding parking:

*Section 17.30.220 of the RDMC specifies the City's parking standards, which requires one parking space per 500 square feet of development, as well as handicap, bicycle, and*



motorcycle parking and loading spaces. Based on the requirements of Section 17.30.220 of the RDMC, approximately 188 parking spaces would be required for the Site; however, based on the nature of the proposed use an exception to the parking standard is sought. The proposed operation would generally not be open to the public and on most days, no visitors other than the property owners, Applicant, employees, or delivery personnel would be coming to the Site. However, one tour per quarter (as discussed above under Section 2.2) is estimated. Tours would arrive in a single vehicle (van or bus). As discussed under Section 2.2 above, at peak shift, 17 total employees are anticipated on-site at one time. To ensure adequate parking on-site, the Applicant is proposing one parking space per employee plus 16 extra spaces, as well as the required number of ADA-accessible, bicycle, motorcycle, and loading spaces as required under the RDMC.

As provided in Table 2, below, and as shown on the Site plan, the Applicant proposes to provide the following parking facilities on-site:

Table 2. Summary of Proposed On-Site Parking Facilities

Parking Type	Number of Spaces
Standard Parking	33
ADA-Accessible Parking	2
Bicycle Parking	5
Motorcycle Parking	2
Loading Spaces	2

Staff is supportive of a parking exception. It should be noted that Section 17.30.220(1)(b) of the RDMC contains the following language:

*"It shall be the responsibility of the developer, owner or operator of any specific use to provide adequate off-street parking even though such parking is in excess of the minimum requirements set forth in these requirements."*

The Rio Dell Municipal Code (RDMC) requires one disabled or accessible space per 25 parking. The handicap space must be permanently signed and the space painted with the international symbol of accessibility. Staff has conditioned the project accordingly. **Please refer to Exhibit A.**

Section 17.30.180(6) of the RDMC identifies the minimum dimensions of parking spaces and aisles. The applicant is proposing perpendicular spaces. The proposed parking space dimensions, 19' x 8.5', and aisle dimensions, 25', complies with the City's parking regulations.

Section 17.30.180(7)(a) of the RDMC requires all parking spaces, access drives and maneuvering areas to be improved with and permanently maintained with an all-weather durable asphalt, concrete of comparable surface as required by the Director of Public Works. Almost the entire site is paved. However, the applicant will be removing the paving as part of the proposed fill.

Staff has included as an operational condition that all paving be permanently maintained in good condition. **Please refer to Exhibit A.**

Section 17.30.180(8) of the RDMC requires that the parking spaces be clearly delineated with white 4-inch-wide lines and that the stripping be continuously maintained in a clear and visible manner. The project has been conditioned accordingly. **Please refer to Exhibit A.**

Section 17.30.180(9) of the RDMC requires concrete curbing at least 6 inches in height and 6 inches wide around the perimeter of the parking and landscaped areas. The curbing is allowed to have breaks in it to allow stormwater to pass. The applicant shall submit Improvement Plans identifying the required curbing. The project has been conditioned accordingly. **Please refer to Exhibit A.**

Section 17.30.180(10) of the RDMC identifies driveway and access requirements. The purpose of the driveway provisions is to limit the number of driveways to avoid potential conflicts with pedestrians, bicyclist and vehicles. The number of access drives per parcel shall be the minimum number required to serve the intended use of the parcel. The project as proposed does not create potential conflicts with pedestrians, bicyclist and vehicles. The project has been conditioned to provide an ADA approved (Chapter 11B of the California Building Code) path of travel from Northwestern Avenue to the proposed greenhouses. The project has been conditioned accordingly. **Please refer to Exhibit A.**

Section 17.30.180(10)(b) of the RDMC requires that each access driveway be located a minimum of 50 feet from the nearest intersection, as measured from the centerline of the access road driveway to the centerline of the nearest travel lane of the intersecting street, unless a lesser or greater distance is approved or required by the Director of Public Works. The proposed driveway locations comply with this regulation.

Section 17.30.180(11)(b) of the RDMC requires that one-way driveways be a minimum of 16 feet wide and two-way driveways be a minimum of 25 feet wide. The applicant is proposing two, 25-foot-wide entrances onto the site. The Fortuna Fire Protection District has requested a 20' minimum travelway around the perimeter of the greenhouses. Staff is recommending that one-way signage and arrows be painted and maintained on the asphalt travelway. The project has been conditioned accordingly. **Please refer to Exhibit A.**

Sections 17.30.180(12), (13) and (14) of the RDMC identifies parking area landscape requirements for parking lots containing 3 spaces or more. Landscaping has to be provided throughout the parking lot as a combination of ground cover, shrubs and trees. The landscaping plan does incorporate the use of ground cover including shrubs and trees. Staff is recommending that the project be conditioned to require use of low water landscaping and submit a Landscaping Plan that incorporates the use of ground cover, shrubs and trees. **Please refer to Exhibit A.**



Section 17.30.180(13)(i) requires a six-foot landscaping strip between the parking area and the street, curb, gutter and sidewalk. The property does not have direct frontage on Northwestern Avenue.

Section 17.30.310 et. seq. requires the construction of curb, gutter, sidewalks and street improvements as conditions of approval of an entitlement permit. This is consistent with a number of Goals and Policies of the Circulations Element, including Policies 3-1 and 3-2, requiring pedestrian and bicycle improvements. These regulations and policies are consistent with AB 1328, Complete the Streets legislation and the United States Department of Transportation Policy Statement on bicycle and pedestrian improvements. Staff has discussed this requirement and recommends that curb gutter and sidewalks be provided along fifty (50) foot easement as shown on the site plan and that portion to Northwestern Avenue. In addition, staff is recommending that curb, gutter and sidewalk be extended 25' easterly along Northwestern Avenue. This will require additional paving of a portion of the access easement near Northwestern Avenue. Please refer to Figure 3. Staff is recommending that curb, gutter and sidewalk along the additional frontage on Northwestern Avenue be extended at the time the adjacent parcel to the east is developed. As such, staff is recommending that the applicant enter into a **Deferred Improvement Agreement**.



Figure 3

The required improvements shall be identified on the required Improvement Plans. The project has been conditioned accordingly. **Please refer to Exhibit A.**

Section 17.30.180(12)(a)(iii) of the RDMC encourages on-site stormwater detention/retention, pollutant cleansing and groundwater recharge. In addition, the City's Open Space and Conservation Element, Policies CO 5.2-7 and CO 5.6-2 require the incorporation of detention/retention facilities and bio swales. It is the City's policy that there is no net increase in stormwater runoff during a 25-year storm event as a result of a project.

As discussed earlier almost the entire site is paved. No additional impervious areas will be created by the proposed project. As such, there will be no increase in stormwater runoff. However, the drainage in the Northwestern Avenue area is problematic during larger storm events, resulting in flooding a portion of the roadway and the driveway access point.

There are existing drainage ditches (retention areas) that run parallel with Northwestern Avenue between Northwestern Avenue and the railroad tracks. The City Engineer has recommended the following:

1. *Clean out/improve the existing drainage area between to Northwestern Avenue and the railroad tracks to provide an area managed for retention/detention of stormwater discharge from the new development areas similar to how the City expects the Schneider (Rio Dell Holdings) development to the north west to handle it.*
2. *Create an operation and maintenance agreement with the City of Rio Dell for the detention/retention area, such that the owner(s) of the newly formed property will operate and maintain the detention/retention area in perpetuity.*
3. *Provide grading and drainage plans with sufficient infrastructure and details to ensure stormwater created post construction will be properly managed.*

The project has been conditioned accordingly. **Please refer to Exhibit A.**

Section 17.30.180(13)(a) of the RDMC requires that parking areas be screened from streets and adjoining properties and contains the following perimeter parking landscaping requirements:

- (i) A proposed parking area adjacent to a public street shall be designed with a landscaped planting strip between the street right-of-way and parking area with a minimum depth of 6 feet.*
- (ii) Landscaping within the planting strip shall be designed and maintained to screen cars from view from the street to a minimum height of 18 inches, but shall not exceed any applicable height limit for landscaping within a setback.*



*(iv) Trees that reach a mature height of at least 20 feet shall be provided within the planting strip in addition to trees within the parking lot interior required by Subsection (a)(v). Trees types shall have root systems that will not extend beyond the planting area.*

*(v) Plant materials, signs, or structures within a traffic safety sight area of a driveway shall comply with Section 17.30.090(1) (Corner Lots – Sight Distance).*

The project site does front on the 50' easement on the west side of the property. This easement is not a public street. However, the applicant is proposing a landscape strip, including trees and shrubs, along the south and west sides of the parcel. This landscaping will provide the required screening.

Section 17.30.180(14) of the RDMC requires that 10% of the gross area of the parking lot be landscaped. The parking areas including the stalls and maneuvering areas total approximately 12,000 square feet. Accordingly, about 1,200 square feet of landscaping within or adjacent to the parking area is required. The property basically has double frontage to the adjacent travelways. This results in approximately 800 lineal feet of landscaping at a minimum six (6) feet wide. As such, the applicant is proposing approximately 4,800 square feet of landscaping. The proposed landscaping exceeds the required area to be landscaped.

In addition, pursuant to Section 17.30.180(14)(a) of the RDMC, trees that reach a minimum height of twenty (20) feet are required within or adjacent to the parking lot at a minimum ration of one (1) tree for every five (5) parking spaces. Although the Landscaping Plan identifies a number of trees, it's difficult to tell exactly how many are proposed and what their mature height will be. As such, staff has conditioned the project to require the Landscaping Plan to clearly identify requisite trees. **Please see Exhibit A.**

Pursuant to Section 17.30.180(15) of the RDMC, outdoor lighting fixtures are limited to a maximum height of fifteen (15) feet and the fixtures must be directed downward and away from adjoining properties and public rights-of-way, so that no on-site lighting directly illuminates adjacent properties. The Site Plan indicates that exterior lighting will be placed on every other building (greenhouse). The project has been conditioned to require each light fixture be a LED fixture and be directed downward and away from adjoining properties and public rights-of-way and so that no on-site light fixture directly illuminates adjacent properties. **Please see Exhibit A.**

Section 17.30.180(21) of the RDMC identifies the number of required loading spaces. Industrial and manufacturing uses are required to provide 1 loading space for 5,000 to 40,000 square feet of gross floor area. Loading spaces must be at least 11' x 35' and have at least 14 feet of vertical clearance. The site plan identifies two loading spaces adjacent to greenhouse #8. The project as proposed complies with the required number of loading space.

Loading areas are to be screened with a combination of dense landscaping and solid masonry walls with a minimum height of six feet. The site plan does shows proposed screening. The

loading areas must be striped and identified for “loading only” and the striping and notation must be continuously maintained in a clear and visible manner. The project is conditioned accordingly. **Please refer to Exhibit A.**

Section 17.30.300 includes the City’s sign regulations. The project has been conditioned to require compliance with the sign regulations. **Please see Exhibit A.**

Based on the submitted information, including the Plan of Operation, and the recommended conditions of approval, staff believes the proposed uses are consistent with the City Zoning Regulations.

### **Design Review**

Section 17.25.050 *et. seq.* for the RDMC contains the Design Review Regulations. The Design Review Regulations apply to new buildings and/or structures. The Planning Commission is required to review and approve, conditionally approve, or deny Design Review applications using the guiding principles and design concepts, application review process, and findings identified in Section 17.25.050(8) of the RDMC. Below are the Guiding Principles and Design Concepts:

- To encourage high quality land/site planning, architecture and landscape design;
- To ensure physical, visual, and functional compatibility between uses: and
- To ensure proper attention is paid to site and architectural design, thereby protecting land values.

As indicated above the project is also subject to the required Design Review findings found in Section 17.25.050(8) of the RDMC. The required findings are as follows:

*(1) The proposed project is consistent with the objectives of the General Plan, complies with applicable Zoning regulations, Specific Plan provisions, Special Planning Area provisions, and is consistent with the applicable "Guiding Principles" and "Design Concepts" in **Section 17.250.050(5) Rio Dell Municipal Code (RDMC).***

Staff will address General Plan consistency in Section 2 of this staff report. The zoning consistency analysis was provided previously. This section of the staff report is addressing landscaping and design review.

Below are the adopted Design Concepts for Site Planning for industrial/commercial developments.

- *Design of new development with particular attention to compatibility between non-residential and adjacent residential uses/properties within the project vicinity.*



There are no residences adjacent to the site or in the near proximity of the site.

- *A unified design theme for integrated developments. All buildings within an integrated development shall be designed consistent with the approved design theme.*

It should be noted that the Stakeholders did not want a uniform design theme for the Humboldt Rio Dell Business Park as long as the building designs exhibited quality, aesthetically pleasing projects. In this case, greenhouses are fairly uniform in design with the exception of different roof style, gothic or arched or gable. The ends of the greenhouses and the head house will be an earth tone color. There are very limited design elements that can be incorporated into a greenhouse. Because of this, it's important that the site incorporate landscaping. The applicant is proposing a fairly significant amount of landscaping around the perimeter of the project site.

- *Pedestrian-friendly design which incorporates pedestrian amenities and outdoor gathering places into the project design with consideration given to the climate and planned use of space.*

Consistent with other projects in the HRDBP, staff is recommending that the frontage along the 50-foot easement on the west side of the parcel be improved to require curb, gutter, sidewalks. As previously discussed, staff is also recommending that curb, gutter and sidewalk be constructed along the railroad right-of-way and shown in Figure 3 and extended 25' easterly along Northwestern Avenue. This will require additional paving of a portion of the access easement near Northwestern Avenue. Please refer to Figure 3. Again, staff is recommending that curb, gutter and sidewalk along the additional frontage on Northwestern Avenue be extended at the time the adjacent parcel to the east is developed. As such, staff is recommending that the applicant enter into a **Deferred Improvement Agreement**. The project is conditioned accordingly.

The recommended conditions are consistent with the Circulation Element. AB 1328, Complete the Streets legislation and the United States Department of Transportation Policy Statement on bicycle and pedestrian improvements. The project is conditioned accordingly. **Please refer to Exhibit A.**

- *A streetscape appearance that defines the pedestrian and vehicle corridor and presents an appealing and continuous theme along a sidewalk or street.*

Again, the project site does not actually front on Northwestern Avenue. However, the proposed and required landscaping adjacent to the sidewalk improvements along the 50-foot easement does provide an appealing and continuous theme along that portion of the property. In addition, the applicant is proposing a landscaping strip adjacent to the access easement on the south of the parcel.

- *Office and light industrial parks and integrated employment campuses that provide outdoor areas for eating and sitting, retail and service venues as appropriate, and other amenities for project employees.*

The applicant is proposing an outdoor area for eating and sitting, however it lacks detail of any proposed outdoor amenities, including picnic tables. The project has been conditioned to require a detailed plan of the proposed improvements. **Please refer to Exhibit A.**

- *Design flexibility for mixed-use development that ensures compatibility of use types and promotes beneficial relationships among uses.*

The proposed project is not a mixed-use development. The proposed development is focused on the legal commercial cannabis industry.

- *Where feasible, design streets with separated sidewalks that incorporate a planter strip between the back of curb and sidewalk.*

Because of the fill required to raise the building site, the applicant is proposing the landscaping strip adjacent to the sidewalk. Providing the landscaping strip between the travelway and the sidewalk would reduce the buildable area of the parcel. Staff supports the landscaping as proposed.

*(2) The proposed architecture, site design, and landscape are suitable for the purposes of the building and the site and will enhance the character of the neighborhood and community.*

Again, greenhouses are fairly uniform in design with the exception of different roof style, gothic or arched or gable. The ends of the greenhouses and the head house will be an earth tone color. There are very limited design elements that can be incorporated into a greenhouse. Because of this, it's important that the site incorporate landscaping. The applicant is proposing a fairly significant amount of landscaping around the perimeter of the project site. As such, staff believes the project will enhance the character of the neighborhood and community.

The Design Review adopted Design Concepts encourages the following:

- *High quality building designs that consist of durable and maintainable materials and that provide visual interest and diversity to the community.*

The proposed greenhouses are of the highest quality and are durable and maintainable.

- *Use of an architectural style and or/theme for new non-residential development that is consistent for building elevations of a single structure or consistent among all buildings within an integrated development.*



Of course, the proposed greenhouses are consistent among one another.

- *Design of buildings or structures that are sensitive to the neighborhood character with regard to scale, architectural style, use of materials and bulk.*

Staff believes the proposed greenhouses are consistent to the character of the area in regards to scale, style, materials and bulk.

- *Interesting and attractive architecture which includes varied relief of the facade elements and detailed articulation of the building features.*

Again, it is difficult to provide relief and articulation to greenhouses. However, staff believes the proposed landscaping along the front of the site will screen and somewhat provide relief to the long expanse of greenhouses.

- *Incorporate quality site design, including landscaping, signage and other elements of site design.*

Staff has previously addressed the landscaping in the zoning consistency analysis. Based on the submitted plans and recommended conditions of approval, staff believes that the site design and associated landscaping certainly enhances the character of the area and community. Again, the project has been conditioned to require compliance with the City's sign regulations.

*(3) The architecture, including the character, scale and quality of the design, relationship with the site and other buildings, building materials, screening of exterior appurtenances, exterior lighting and signing and similar elements establishes a clear design concept and is compatible with the character of existing or anticipated buildings on adjoining and nearby properties.*

The site is zoned to allow various industrial uses and commercial uses. Staff believes the proposed greenhouses and associated landscaping is compatible with the nearby properties.

The site plan identifies two 40-yard dumpsters near the northeast corner of the property. Staff recommends that the dumpsters, include a recycling dumpster and be screened or relocated to be out of the public view. Staff is also recommending that utilities be placed underground. The project has been conditioned accordingly. **Please see Exhibit A.**

Staff has previously addressed the proposed exterior lighting associated with the project. In regards to signage, Section 17.30.300 of the RDMC identifies the City's sign regulations.

*4) The proposed project will not create conflicts with vehicular, bicycle, or pedestrian transportation modes of circulation.*

As previously indicated based on the project location, surrounding uses and anticipated levels of use and the recommended conditions of approval, staff believes there is no evidence that the proposed development would result in future potential conflicts with pedestrians, bicyclist and vehicles.

Based on the information submitted, staff believes the proposed greenhouses and associated landscaping do comply with the City's Design Review Regulations.

## **2. General Plan Consistency**

*(b) The proposed use is consistent with the general plan and any applicable specific plan;*

The General Plan designation is also Industrial Commercial. The purpose of the Industrial Commercial designation is to provide for industrial and commercial uses. All the uses would be considered principally permitted uses if the activities did not involve cannabis. chemotherapy.

The proposed uses are consistent with the following General Plan goal: "To promote a variety of commercial uses and allow light manufacturing in appropriate commercial areas."

There are no goals or policies which would preclude the proposed use in the Industrial Commercial designation. Therefore, the proposed use as conditioned is consistent with the General Plan.

## **3. Land Use Compatibility**

*(c) The design, location, size, and operating characteristics of the proposed activity are compatible with the existing and future land uses in the vicinity;*

Again, this required finding was made in regards to the design, location and size of the buildings as part of the Design Review approval. Based on the recommended conditions of approval, including the City's Performance Standards and the State regulations, staff believes the project can be found to be consistent with the existing and future land uses in the vicinity.

## **4. Site Suitability**

*(d) The site is physically suitable for the type, density and intensity of use being proposed, including access, utilities, and the absence of physical constraints;*

The project site is subject to flooding. Section 17.30.140 of the RDMC requires that if a proposed building site is located in a flood zone, any proposed new construction or substantial improvement, must:

(a) Be designed or modified and anchored to prevent flotation, collapse or lateral movement of the structures;

- (b) Use construction materials and utility equipment that are resistant to flood damage; and
- (c) Use construction methods and practices that will minimize flood damage.

In addition, to our local regulations, the project is also subject to FEMA's flood regulations (Title 44 Code of Federal Regulations, Section 61.7 and 61.8) which require that the first floor of the structure be located one foot above the Base Flood Elevation (BFE). As such a Flood Elevation Certificate is required, this identifies among other site features, the BFE and the elevation of the floor of the building. Staff conditioned the Design Review project accordingly.

Access to the project site is from Highway 101. In regards to access, the City commissioned a Traffic Impact Study (TIS) with W-Trans out of Santa Rosa. Based on current and future conditions, W-Trans concluded that the access to and from the Business Park is adequate.

However, Caltrans has indicated that based on the intensity of development and traffic associated with it, some improvements, including the expansion of the left turn pockets (queuing), acceleration and deceleration northbound lanes and southbound staging/merging areas for vehicles exiting the business park may be required at a future date.

Any improvement costs will be shared among the developers based on the number of daily trips generated by their uses. The project has been conditioned accordingly. **Please refer to Exhibit A.**

Based on information on file and the recommended conditions of approval, staff believes the site is physically suitable for the intended uses.

## **5. Public Interest, Health, Safety and Welfare**

*(e) Granting the permit would not be detrimental to the public interest, health, safety, convenience, or welfare, or materially injurious to persons, property, or improvements in the vicinity and zoning district in which the property is located;*

The new construction is subject to the California Building Codes, including the California Fire Code, which includes standards to ensure that the buildings are constructed to minimum safety standards.

The project site is within the boundaries of the Fortuna Fire Protection District (FFPD) for comments and recommended conditions of approval. Below are the District's recommended conditions of approval:

- Water main - to be extended with fire hydrant(s) installed in location(s) acceptable to the Fortuna Fire and Rio Dell Fire Protection Districts – number and locations TBD.



- Propane tanks - to be located a minimum distance of 25 feet from buildable property line and structures with a minimum 3-foot separation between tanks.
- Fire lane access - minimum 20-foot width fire lane access to be maintained throughout the facility grounds.
- Entrance addressing – addressing at each entrance as well as building identification will need to be approved by fire department – this can be addressed during building plan reviews
- Operations plan - please provide an operations plan with updated site plan submittal
- Storage - please provide an inventory of materials to be stored with building plan set

● Building plan set - all building plans to comply with current building and fire codes, to include exiting plan

Based on information on file and the recommended conditions of approval, staff believes there is no evidence to suggest that the proposed project will be detrimental to the public interest, health, safety, convenience, or welfare, or materially injurious to persons, property, or improvements in the vicinity and zoning district in which the property is located.

## 6. California Environmental Quality Act

The primary purpose of the California Environmental Quality Act (CEQA) is to inform the decision makers and the public of potential environmental effects of a proposed project. Based on the Environmental Impact Report (EIR) prepared as part of the annexation of the area into the City which analyzed potential industrial uses and the nature of the project, including the proposed operating protocols and recommended conditions of approval, staff has determined that the project is Statutorily Exempt pursuant to Section 15061(b) (3) of the CEQA Guidelines, Title 14, Chapter 3 of the California Code of Regulations. Pursuant to Section 15061(b) (3) of the CEQA Guidelines this exemption is covered by the general rule that CEQA applies only to projects which have the potential for causing a **significant** effect on the environment. Based on the nature of the proposed projects, staff believes there is no evidence to suggest that the projects will have a **significant** effect on the environment.

### Attachments:

Attachment 1: Site Plan.

Attachment 2: Plan of Operations.

Attachment 3: Exhibit A, Conditions of Approval

Attachment 4: Resolution No. PC 146-2020.

## **EXHIBIT A**

### **Conditions of Approval**

#### **Marathon 102 Conditional Use Permit**

**File No. 205-111-074; Case No's. CUP-CCLUO-20-02 & CUP-DR-20-02**

### **Conditions of Approval**

1. Greenhouses shall utilize in-floor drains for accidental over-watering or spills and shall drain to landscape area or be recycled. The floor drainage system shall not be tied to the on-site wastewater treatment system.
2. All greenhouses must be fully enclosed, secure and lockable.
3. All disposal of cannabis waste is subject to Section 40290 of the California Code of Regulations (CCR). Section 40290(e) of the CR's requires that the cannabis waste be rendered to make it unusable and unrecognizable before removing the waste from the premises. This requires that the cannabis waste be grinded and incorporated with other ground material so that the resulting mixture is at least 50% non-cannabis material by volume. All hazardous waste as defined in Section 40141 of the Public Resources Code (PRC) must be managed with all applicable hazardous waste statutes and regulations.
4. In addition to any and all State regulations to cannabis cultivation, all cultivation activities are subject to the Performance Standards in Section 17.30.195(10) of the Rio Dell Municipal Code.
5. Light shall not escape at a level that is visible from neighboring properties between sunset and sunrise. Should the City receive complaints that the lighting is out of alignment or not complying with these standards, within ten (10) working days of receiving written notification that a complaint has been filed, the applicant shall submit written verification that the lights' shielding and alignment has been repaired, inspected and corrected as necessary.
6. A temporary generator(s) is allowed for Phase 1 based on the following conditions:
  - ♦ The generator(s) shall be enclosed to minimize noise levels.
  - ♦ Noise levels shall not exceed 60 decibels at any property line.
  - ♦ The generator(s) shall be Tier 4.
  - ♦ The applicant shall submit a signed agreement with PG&E regarding the installation of the needed infrastructure/power.
  - ♦ The applicant shall enroll in the County Hazardous Waste program. Hazardous materials and wastes from agricultural businesses are regulated by the Humboldt County Environmental Health Division, which administers the Hazardous Materials program as

one of the Certified Unified Program Agencies (CUPA). This includes the application, inspection, enforcement, and reporting under the program requirements and standards set by the California Environmental Protection Agency (CalEPA). The applicant shall provide evidence of enrollment.

- ♦ The use of the generator(s) is limited to 180 days.
- ♦ Phase II will not be allowed to commence until adequate public (PG&E) power is provided to the site.

7. The applicant shall provide 33 standard (8.5' x 19') parking spaces, two ADA space, three motorcycle spaces and six bicycles. The applicant shall submit Improvement Plans identifying the required curbing.

8. All parking spaces, access drives and maneuvering areas to be improved with and permanently maintained with an all-weather durable asphalt, concrete of comparable surface as required by the Director of Public Works.

9. The parking spaces be clearly delineated with white 4-inch-wide lines and that the stripping be continuously maintained in a clear and visible manner.

10. Concrete curbing at least 6 inches in height and 6 inches wide shall be installed around the perimeter of the parking and landscaped areas. The curbing is allowed to have breaks in it to allow stormwater to pass and infiltrate the landscaped areas. The applicant shall submit Improvement Plans identifying the required curbing.

11. The applicant shall submit a Landscaping Plan identifying the types, size at planting and size at maturity of the plantings. The landscaping shall incorporate the use of drought tolerant, native where appropriate ground cover, shrubs and trees.

12. The applicant shall submit a Flood Elevation Certificate (FEC) documenting that the first floor of the structures is located one foot above the Base Flood Elevation (BFE).

13. Drainage Improvements: The applicant shall:

- *Clean out/improve the existing drainage area between to Northwestern Avenue and the railroad tracks to provide an area managed for retention/detention of stormwater discharge from the new development areas similar to how the City expects the Schneider (Rio Dell Holdings) development to the north west to handle it.*



● *Create an operation and maintenance agreement with the City of Rio Dell for the detention/retention area, such that the owner(s) of the newly formed property will operate and maintain the detention/retention area in perpetuity.*

● *Provide grading and drainage plans with sufficient infrastructure and details to ensure stormwater created post construction will be properly managed.*

14. The applicant shall submit a parking lot lighting plan. All lighting shall be LED fixtures and be directed downward and away from adjoining properties and public rights-of-way and so that no on-site light fixture directly illuminates adjacent properties.

15. The applicant shall submit detailed plans and install the outdoor area for eating and sitting, including benches and picnic tables prior to the commencement of operations.

16. Two loading areas, each 11' wide, 35' deep with 14' of vertical clearance shall be provided. If the loading areas are visible to the public they shall be screened as required by Section 17.30.220(21) of the RDMC. Each loading space must be striped and identified for "loading only" and the striping and notation must be continuously maintained in a clear and visible manner.

17. The proposed waste, composting and recycling dumpsters shall be screened or sited so as not to be visible to the public.

18. Curbs, gutters and a five (5) foot sidewalk shall be provided along the 50-foot easement on the west side of the parcel and along the railroad right-of-way and shown in Figure 3 and extended 25' easterly along Northwestern Avenue. This will require additional paving of a portion of the access easement near Northwestern Avenue. Please refer to Figure 3.

Curb, gutter and sidewalk along the additional frontage on Northwestern Avenue shall be extended at the time the adjacent parcel to the east is developed. The applicant enters into a **Deferred Improvement Agreement**.

Caltrans PCC Type A1-6 curbs shall be provided. The applicant shall pave any area between the new gutter and the existing asphalt. When widening hot mix (asphalt roads) the widened road shall be paved with hot mix. A sawcut is required to ensure a uniform joint between the existing and new pavement. The location of the sawcut shall be approved by the Department of Public Works. The structural section of all new asphalt shall include a minimum of 0.2 foot of Caltrans Type B hot mix (asphalt) over 0.67 foot of Caltrans Class 2 aggregate base. If required by the City Engineer, the structural section of all new roads shall be determined by Caltrans R-Value method using a Traffic Index (T.I.) approved by the City Engineer. Based on soil conditions, the City Engineer may also require a geotextile fabric to be placed on top of the sub grade.

19. The applicant shall submit Improvement Plans identifying the following. The plans shall be reviewed approved by the City Engineer. The applicant shall be responsible for the costs of the review and approval.

- All utilities, driveway approaches, travel lanes, curbs, gutters, sidewalks, drainage improvements, fire hydrant locations, no parking areas and any other items deemed necessary by the City Engineer, Public Works Director and the Fortuna Fire Protection District.

20. All utilities shall be placed underground.

21. All improvements in or on City roads or easements require an Encroachment Permit.

22. Highway 101, Metropolitan Heights and Northwestern Intersection Improvements: Any required improvement costs to the Highway 101 and Metropolitan Heights and Northwestern Intersections will be shared among the developers based on the number of daily trips generated by their uses.

23. Community Relations: The applicant shall provide the City Manager or designee with the name, phone number, facsimile number, and email address of an on-site community relations or staff person or other representative to whom the City can provide notice if there are operating problems associated with the medical cannabis facility or refer members of the public who may have any concerns or complaints regarding the operation of the medical cannabis facility. Each medical cannabis facility shall also provide the above information to its business neighbors located within 300 feet of the medical cannabis facility.

24. Inspections: Consent to a minimum of at least one quarterly on-site compliance inspection, to be conducted by appropriate City officials during regular business hours (Monday – Friday, 9:00 am – 5:00 pm, excluding holidays). The applicant shall be required to pay the Inspection Fee in effect at that time.

25. The applicant shall execute the Release of Liability and Hold Harmless Agreement required by Section 17.30.195(4) of the Rio Dell Municipal Code (RDMC).

26. The applicant shall enroll in the County Hazardous Waste program. Hazardous materials and wastes from agricultural businesses are regulated by the Humboldt County Environmental Health Division, which administers the Hazardous Materials program as one of the Certified Unified Program Agencies (CUPA). This includes the application, inspection, enforcement, and reporting under the program requirements and standards set by the California Environmental Protection Agency (CalEPA). The applicant shall provide evidence of enrollment.

### Operational Conditions

1. Electricity for the Mixed Light cultivation activities shall be provided by any combination of the following:

- ♦ On-grid power with 42 percent renewable source.
- ♦ Onsite zero net energy renewable source providing 42 percent of power.
- ♦ Purchase of carbon offsets for any portion of power above 58 percent not from renewable sources.
- ♦ Demonstration that the equipment to be used would be 42 percent more energy efficient than standard equipment, using 2014 as the baseline year for such standard equipment.

Purchase of carbon offset credits (for grid power procured from non-renewable producers) may only be made from reputable sources, including those found on Offset Project Registries managed the California Air Resources Board, or similar sources and programs determined to provide bona fide offsets recognized by relevant state regulatory agencies.

All outdoor storage materials and equipment shall be screened from public view.

2. The building, parking lot, stripping and landscaping shall be maintained in good condition. The stripping shall be permanently maintained in a clear and visible manner.

3. The storm drain system, including on-site drainage ditches shall be maintained to ensure they work properly.

4. Each light fixture shall be directed downward and away from adjoining properties and public rights-of-way and so that no on-site light fixture directly illuminates adjacent properties.

5. The operations shall comply with all local and State regulations at all times.

6. Comply with all federal, state, and local laws and regulations applicable to California Agricultural Employers, including those governing cultivation and processing activities.

7. Record Retention. The term record includes: all records, applications, reports or other supporting documents required by the City and the State.



- ♦ Each permittee shall keep and maintain the records listed in subsection (e) for at least 7 years from the date the document was created.
- ♦ Records shall be kept in a manner that allows the records to be immediately produced for the City at the permitted premises.
- ♦ All records related to commercial cannabis activity are subject to inspection by the City.
- ♦ A permittee may contract with a third party to provide custodial or management services of the records. Such a contract shall not relieve the licensee of its responsibilities under this condition.
- ♦ Each permittee shall maintain all of the following records on the licensed premises or at a different location identified by the licensee and approved by the City, including but not limited to:
  - City and State issued permits and license(s);
  - Plan of Operations;
  - All records evidencing compliance with the environmental protection measures required in Sections 8313, 8314, and 8315 of the California Code of Regulations;
  - Any supporting documentation for data or information input into the track-and-trace system;
  - Financial records, including but not limited to, bank statements, tax records, invoices, and sales receipts;
  - Personnel records, including each employee's full name, social security, or individual tax payer identification number, date of beginning employment, and date of termination of employment if applicable;
  - Training records, including but not limited to the content of the training provided and the names of the employees that received the training;
  - Contracts with other state licensed medical cannabis businesses;

- Permits, licenses, and other local authorizations to conduct the licensee's commercial cannabis activity;
  - Security records; and
  - Records associated with the composting or disposal of waste.
- ◆ All required records shall be prepared and retained in accordance with the following conditions:
  - ◆ Records shall be legible; and
  - ◆ Records shall be stored in a secured area where the records are protected from debris, moisture, contamination, hazardous waste, fire and theft.

The applicant shall pay all fees and taxes as required by the City of Rio Dell.

### **Informational Notes**

1. If potential archaeological resources, paleontological resources or human remains are unearthed during grading activities, all work ground disturbing activities shall be stopped and a qualified archaeologist funded by the applicant and approved by the City of Rio Dell and the Bear River Band of the Wiyot Nation, shall be contracted to evaluate the find, determine its significance, and identify any required mitigation (e.g., data recovery, resource recovery, in-situ preservation/capping, etc.). Any such mitigation shall be implemented by the developer prior to resumption of any ground disturbing activities.

2. In accordance with California Health and Safety Code §7050.5 and California Public Resources Code §5097.94 and 5097.98, if human remains are uncovered during project subsurface construction activities, all work shall be suspended immediately and the City of Rio Dell, Humboldt County Coroner and the Bear River Band of the Wiyot Nation shall be immediately notified. If the remains are determined by the Coroner to be Native American in origin, the Native American Heritage Commission (NAHC) shall be notified within 24 hours of the determination, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains.

**RESOLUTION NO. PC 148-2020**



**RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF RIO DELL  
APPROVING MARATHON 102 CANNABIS ACTIVITIES CONDITIONAL USE PERMIT  
& DESIGN REVIEW**

**WHEREAS** Marathon 102, LLC is requesting a Conditional Use Permit (CUP) for Cannabis Cultivation, Processing and Distribution at the former Eel River Sawmill site, now known as the Humboldt Rio Dell Business Park; and

to permit 54,610 square feet (sf) (canopy area) of mixed-light commercial cannabis cultivation; and

**WHEREAS** Section 17.30.195 the City's Commercial Cannabis Land Use Ordinance (CCLUO), allows commercial cannabis activities at the former Eel River Sawmill site, now known as the Humboldt Rio Dell Business Park with a Conditional Use Permit (CUP); and

**WHEREAS** the cultivation would occur within seven (8) greenhouses built to a maximum of 93,800 sf with 54,610 square feet (sf) (canopy area); and

**WHEREAS** on-site processing (drying and trimming) is also proposed to occur within the head house which is attached to and included in the square footage for the greenhouse. The headhouse will be divided into separate areas, including office space, utilities, processing, shipping, and storage areas; and

**WHEREAS** the proposed development will occur in three phases; and

**WHEREAS Phase I:** Construction of Greenhouse #1, Headhouse #1, parking lot, landscaping, rain garden, and on-site septic.

**WHEREAS Phase II:** Construction of Greenhouse #2 (to commence approximately 5 months after completion of Phase I).

**WHEREAS Phase III:** Construction of Greenhouses #3 and #4 (to commence approximately 5 months after completion of Phase II).



**WHEREAS** The buildings were evaluated for compliance with the development standards of the Industrial Commercial (IC) zone, including setbacks, lot coverage, building height, parking, design review, landscaping etc. as part of the Design Review approval; and

**WHEREAS** the purpose of the Industrial Commercial zone is to provide for industrial and commercial uses; and

**WHEREAS** based on the information submitted and referral agency comments or lack of comments, staff recommends that the proposed uses be found to be consistent with the development standards of the Industrial Commercial (IC) zone and the Commercial Medical Cannabis Land Use Ordinance, Section 17.30.195, the Use Permit requirements of Section 17.35.030 and the Design Review requirements found in Section 17.250.050 of the Rio Dell Municipal Code; and

**NOW, THEREFORE, BE IT RESOLVED** that the Planning Commission of the City of Rio Dell finds that *as conditioned*:

- (a) The proposed use is allowed within the applicable zoning district and complies with all other applicable provisions of this title and all other City ordinances, including the applicable "Guiding Principles and Design Concepts" in Section 17.250.050(5) Rio Dell Municipal Code (RDMC);
- (b) The proposed use is consistent with the general plan and any applicable specific plan; and
- (c) The proposed design, location, size, landscaping and operating characteristics of the proposed activity are compatible with and will enhance the character of the neighborhood and community and future land uses in the vicinity; and
- (d) The architecture, including the character, scale and quality of the design, relationship with the site and other buildings, building materials, screening of exterior appurtenances, exterior lighting and signing and similar elements establishes a clear design concept and is compatible with the character of existing or anticipated buildings on adjoining and nearby properties; and
- (e) The site is physically suitable for the type, density and intensity of use being proposed, including access, utilities, and the absence of physical constraints;
- (f) The proposed project will not create conflicts with vehicular, bicycle, or pedestrian transportation modes of circulation; and
- (g) Granting the permit would not be detrimental to the public interest, health, safety, convenience, or welfare, or materially injurious to persons, property, or improvements in the vicinity and zoning district in which the property is located; and
- (h) The Conditional Use Permit has been processed in accordance with the applicable provisions of the California Government Code and the California Environmental Quality Act (CEQA);

**I HEREBY CERTIFY** that the forgoing Resolution was PASSED and ADOPTED at a regular meeting of the Planning Commission of the City of Rio Dell on July 1, 2020 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

---

Nick Angeloff, Chairperson

ATTEST:

I, Karen Dunham, City Clerk for the City of Rio Dell, State of California, hereby certify the above and foregoing to be a full, true and correct copy of Resolution No. PC 148-2020 adopted by the Planning Commission of the City of Rio Dell on July 1, 2020.

---

Karen Dunham, City Clerk, City of Rio Dell

# Marathon 102, LLC

## Project Description and Plan of Operations

Conditional Use Permit for Mixed-Light  
Cannabis Cultivation and On-Site Processing  
1325 Northwestern Avenue, Rio Dell, California

Updated April 22, 2020

Prepared for:  
Mr. Sean Suh

Prepared By:  
LACO Associates, Inc  
21 W. Fourth Street  
Eureka, California 95501  
707-443-5054

Project No. 9592.02

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Appendix 1: Humboldt County LID Bioretention Facility  
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Appendix 2: On-Site Wastewater Treatment System Test  
Results

## 1.0 PROJECT DESCRIPTION

### 1.1 Project Proposal

Marathon 102, LLC (Applicant and Operator) is requesting a Conditional Use Permit (CUP) through the City of Rio Dell in order to permit 54,610 square feet (sf) (canopy area) of mixed-light commercial cannabis cultivation. The cultivation would occur within nine (9) greenhouses built to a maximum of 93,800 sf. On-site processing (drying and trimming) is also proposed to occur within two headhouse(s), which are attached to and included in the square footage for the greenhouses. The headhouse will be divided into separate areas, including office space, utilities, processing, shipping, and storage areas. Additionally, the Applicant proposes the installation of four (4) cargo/shipping containers in accordance with Section 17.30.020(10) (Accessory Uses and Buildings) of the Rio Dell Municipal Code (RDMC), to be utilized for equipment storage space. The proposed location is adjacent to Greenhouse #4, in the eastern portion of the site. The cargo/shipping containers will not be placed within any easements or required setback areas, will not be stacked, and will be painted a solid neutral color to match the greenhouses.

Development on-site would be phased. The initial construction would include one of the greenhouses (Greenhouse #1), the easternmost headhouse (Headhouse #1), and ancillary facilities (parking, on-site sewage disposal, rain garden, and landscaping). Over time the maximum proposed greenhouse square footage would be built. The estimated project phases are as provided below:

- Phase I: Construction of Greenhouse #1, Headhouse #1, parking lot, landscaping, rain garden, and on-site septic
- Phase II: Construction of Greenhouse #2 (to commence approximately 5 months after completion of Phase I)
- Phase III: Construction of Greenhouses #3 and #4 (to commence approximately 5 months after completion of Phase II)
- Phase IV: Construction of remaining greenhouses (Greenhouses #5 through #8) and Headhouse #2 (to commence approximately 10 months after completion of Phase III)

A site plan detailing the proposed size and location of each project component is included for your reference. Additionally, Table 1 below provides a brief summary of the Site and proposed project.

*Table 1. Summary of Site APNs, Gross Acreage, Requested Canopy Size, Land Use and Zoning Designations, and Commercial Cannabis License Type*

APN	Gross Acres	Requested Canopy Size (sf)	Land Use/Zoning Designation	Commercial Cannabis License Type
205-111-074	4.88	54,610	Industrial/Commercial (IC)	Mixed Light



## 1.2 Project Location

The project site (Site) totals 4.88 acres in size<sup>1</sup> and comprises the property identified as Assessor's Parcel Number (APN) 205-111-074, located at 1325 Northwestern Avenue in the City of Rio Dell (refer to Site Plan), under ownership of Northwestern 102, LLC. The Site comprises the southeastern-most portion of the City's Sawmill Annexation Area. The Site is roughly rectangular in shape and has relatively flat topography.

The Site is entirely paved and contains no permanent structures. It is currently utilized to store construction material and machinery and was previously utilized as a lumber storage site for Eel River Sawmills. Access to the Site is from Northwestern Avenue along the southern property boundary. Surrounding uses include a newly built building to the north, with undulating forestland further to the north; vacant, undeveloped land to the east; railroad tracks and Northwestern Avenue to the immediate south, with Highway 101 further to the south; and the adjacent property to the use containing storage and an office. The Site has an elevation of approximately 80 feet above mean sea level. According to FEMA National Flood Hazard Map, the Site is located within FEMA Zone AE, which is an area subject to inundation by the one-percent-annual-chance flood event and is inside of the Special Flood Hazard Area of Without Base Flood Elevation (BFE). The Site is designated as "Low Instability" relative to seismic safety (Humboldt County Web GIS).

## 1.3 Allowable Canopy Size

It is our understanding that the City of Rio Dell defers to canopy size limitations found in the State of California's cannabis regulations. The Applicant is seeking to permit a total of 54,610 sf of canopy area.

## 2.0 PLAN OF OPERATIONS

The following section details the proposed cannabis operation.

### 2.1 Cultivation and Processing Activities

The proposed cannabis operation involves mixed-light cultivation within nine (9) greenhouses and on-site processing, including drying and trimming, within two (2) headhouses. Installation of four (4) cargo/storage containers in accordance with Section 17.30.020(10) (Accessory Uses and Buildings) of the RDMC adjacent to Greenhouse #4 for equipment storage space.

Artificial lighting will be utilized year-round, with lighting provided 7:00am to 7:00pm during the non-summer months, and between 7:00am and 9:00am during the summer months. Dark-sky-compliant curtains will be used to enclose the cultivation area to ensure no light transmits from the greenhouses.

---

<sup>1</sup> The Site has a net acreage of 4.11 acres when accounting for the 20-foot access easement along the southern portion of the Site and 50-foot right-of-way along the Site's western boundary.

## **2.2 Hours and Days of Operation, Duration, and Required Employees**

Cultivation would be a continuous operation. A total of four cycles would occur each year. On-site processing (drying and trimming) would occur for two weeks at the end of each cycle. The proposed operation would require up to 15 cultivation laborers and up to 30 trimmers for the on-site processing. However, a maximum of 17 employees are anticipated on-site at any given time. Employees would work a standard 40-hour work week; however, shifts would be staggered so that employees would be on-site each day of the week (Sunday through Saturday). There would be a total of three 8-hour shifts per day, with a maximum of 30 employees per shift.

In addition, security (one employee) would be provided on-site 24 hours a day, 7 days a week. Please note the Applicant is in communication with other Sawmill Annexation Area property owners to explore the possibility of coordinating security coverage of multiple properties, rather than each individual property owner providing individual coverage.

The operation would generally not be open to the public; however, the Applicant anticipates providing tours to the public one time per quarter. Tours would arrive in a single vehicle (van or bus) and would be up to 3 hours in duration.

## **2.3 Access and Circulation**

As previously discussed, access to the Site will continue to be provided from a driveway off Northwestern Avenue, within the southwestern corner of the Site. Under the project, the existing driveway will be widened to 25 feet in width to allow for two-way travel. Additionally, on-site development will provide a minimum 20-foot-wide path of travel around the facility for access.

## **2.4 Incoming and Outgoing Deliveries**

It is anticipated that a maximum of three deliveries of supplies to the Site would occur weekly, with one large incoming delivery of nutrients occurring every other week. Outgoing deliveries with a distribution company will occur at the end of each cycle and are anticipated to occur twice per week on Mondays and Fridays.

## **2.5 Security Plan**

As noted above, 24-hour security will be provided on-site, and the entire perimeter of the Site will be fenced (with wrought iron fencing along the Site's Northwestern Avenue frontage). Additional security features will include a locked gate and surveillance system with cameras, motion lights, and professional monitoring by an alarm company.

The proposed project will provide exterior lighting for added security, including motion lights, perimeter lighting, and parking area lights. All exterior lighting will comply with the requirements established under Section 17.30.180(15) of the Rio Dell Municipal Code (RDMC). All exterior lighting will be downcast and shielded, and will not directly illuminate adjacent properties.

## **2.6 Emergency Evacuation Plan**

Each greenhouse will be equipped with an exit door and each of the exit doors will be located on the same end of each greenhouse. A 6-foot central aisle will provide access between each structure. All exits will be clearly labeled and identified. In the event of an emergency, employees and visitors to the site shall utilize the nearest exit door to exit the structures and shall meet at a designated meeting place. Once safe to do so, emergency personnel will be contacted. All employees will be instructed at the start of employment on the operation's emergency evacuation plan.

## **2.7 Waste Management/Disposal Plan**

On-site waste will be transported off-site by a local waste management company (Eel River Recology). Two appropriately sized dumpsters for garbage and green waste (40 yards each) will be rented and will be serviced weekly by Eel River Recology. The dumpsters are proposed to be located in the northwestern corner of the Site, outside of the 50-foot right-of-way. No hazardous wastes will be utilized on-site requiring special transport and disposal.

## **2.8 Storage Plan**

The storage of the operation's supplies, including salt fertilizers, will occur in the headhouse, within a locked area. Such materials will be contained within properly labeled containers. No pesticides will be utilized under the proposed cannabis cultivation.

## **2.9 Discharge and Emissions**

In order to reduce potential odor emissions, the exhaust fans of each of the proposed greenhouses will be outfitted to implement high pressure fog. Under this system, essential oils and misters will be utilized to create fog. When the fog containing the essential oils and the airborne odors mix, the operation's odors will be neutralized.

At maximum buildout, the facility would use approximately 2.0 million gallons of water annually. Approximately 2 percent of the water (110 gallons per day) is not reused and is considered runoff. This water is not processed through the reverse osmosis system through which the remaining irrigation water is processed and will contain minimal concentrations of salt fertilizers and will comply with North Coast Regional Water Quality Control Board waste discharge requirements. It is anticipated that approximately 191 sf of infiltration space will be needed on-site for a rain garden to dispose of the expected left-over water remaining following full buildout of the project. Per the Site Plan, a rain garden, approximately 250 sf in size, is proposed on the eastern side of Greenhouse #1.

Installation of the rain garden will follow Humboldt County's Low Impact Development (LID) procedures for a bioretention facility (refer to Appendix 1). It will be located near the existing stormwater drainage swale along the southern property boundary and will include an underdrain to pipe excess discharge to the swale. The rain garden will be landscaped using a selection of plants from the North Coast Stormwater Coalition's Low Impact Development Recommended Plant List included in Appendix 1.



## **2.10 Operational Noise**

Although the exhaust fans will generate noise, the noise level associated with the fans will not exceed noise levels associated with adjacent traffic on Highway 101.

## **2.11 Use of Public Facilities**

The proposed operation will require the use of public facilities, including adjacent roadways for delivery trucks and employees traveling to the Site. Additionally, connection to the recently installed water line near the Sawmill Annexation Area will also occur under the project. The operation will use public water for all needed water.

Since public sewer is unavailable at the Site, an appropriately-size septic system with primary and reserve leach fields will be developed on-site to address the project's wastewater needs.

Additionally, the project will construct curb, gutter, and sidewalks along its Northwestern Avenue frontage, in compliance with City requirements.

## **2.12 Water Source and Usage**

The operation will use public water for all needed water, including for fire suppression. It is anticipated that the facility will use a maximum of 2.0 million gallons of water per year annually at full buildout. The cannabis operation includes a dripper system to minimize water waste and evaporation typically associated with spraying.

A 3-inch stand pipe with 2.5-inch connection behind the facility to the north will be provided on-site.

## **2.13 On-Site Septic**

In March 2020, LACO conducted wastewater treatment system exploration in accordance with the current Humboldt County Sewage Disposal Regulations and North Coast Basin Plan standards within the proposed sewage disposal area of the Site, within the southeastern corner of the property. Results of the exploration, including design recommendations for a standard gravity on-site wastewater disposal system for restroom facilities for up to 30 employees, are provided in the *On-Site Wastewater Treatment System Test Results* letter to the Applicant, dated March 26, 2020, previously submitted to the Humboldt County Division of Environmental Health (DEH) and included in Appendix 2.

Two test pits were installed to a maximum depth of 10 feet below ground surface (bgs). A LACO geologist characterized, logged, and sampled soils. Percolation tests at approximately 4 to 4.5 feet bgs for both the primary and reserve areas were conducted in anticipation of a standard gravity system. Laboratory tests for soil texture were conducted on samples in accordance with the testing methods prescribed by the Humboldt County DEH and the North Coast Regional Water Quality Control Board (NCRWQCB).

Based on the results of the evaluation, the proposed sewage disposal areas in the southeastern portion of the Site appear suitable for a standard gravity disposal system consisting of a gravity-fed, single field with 100 percent reserve area as defined by the Humboldt County DEH. A minimum 1,200-gallon septic tank will be

required to serve the proposed project, including the one restroom facility. As provided on the Site Plan, a 1,950-sf septic field with 1,950-sf septic reserve area is proposed in the southeastern corner of the Site.

## **2.14 Utilities**

The project will connect to Pacific Gas and Electric Company (PG&E)-owned electrical facilities for electrical power at the Site. However, during Phase I, use of two (2) diesel generators is planned. One larger generator will be utilized to power the grow lights for 12 hours a day. A smaller generator will run continuously (24 hours a day) to power all the electronics, fans, etc. that are needed for control, ventilation, and air flow. Propane will be provided on-site by a licensed provider for supplemental heating. Each greenhouse is estimated to require between 8,000 to 10,000 gallons per year of propane at full capacity. The proposed location of the propane tanks is along the eastern property boundary and will meet minimum setback requirements from buildings and other potential ignition sources. Bollards will be placed around the tanks for impact protection. At this time, it is estimated that the project will originally include five (5) 1,000-gallon tanks, with up to five (5) additional tanks added after completion of the final phases.

## **2.15 Site Drainage and Erosion Control**

The Site is predominately flat in nature. Since the proposed cultivation would be drip-fed, this would greatly minimize the amount of run-off associated with the proposed operation. In addition, erosion would not occur, as the Site is currently paved.

It is estimated that approximately two percent run-off will occur, which will be directed to the on-site rain garden to be installed under the project, in order to contain the run-off on-site. As a result, pursuant to City requirements, no net increase in stormwater run-off will occur under the project.

## **2.16 Watershed and Habitat Protection**

Since the Site is currently paved, it does not contain any sensitive habitat areas. However, Eel River is located approximately 800 feet south of the Site. As discussed above, the operation will utilize a dripper system to avoid over spraying and the small amount of run-off that is anticipated to occur (two percent) will be contained on-site and directed to the leach field to be installed at the Site. The irrigation system will be regulatory inspected and maintained to ensure run-off is minimized and waste is not discharged into any waters of the state. No vegetation removal is anticipated under the project, as the entirety of the Site is currently paved.

## **2.17 Parking**

Section 17.30.220 of the RDMC specifies the City's parking standards, which requires one parking space per 500 square feet of development, as well as handicap, bicycle, and motorcycle parking and loading spaces. Based on the requirements of Section 17.30.220 of the RDMC, approximately 188 parking spaces would be required for the Site; however, based on the nature of the proposed use an exception to the parking standard is sought. The proposed operation would generally not be open to the public and on most days, no visitors other than the property owners, Applicant, employees, or delivery personnel would be coming to the Site. However, one tour per quarter (as discussed above under Section 2.2) is estimated. Tours would arrive in a single vehicle (van or bus). As discussed under Section 2.2 above, at peak shift, 17 total employees are anticipated on-site at one time. To ensure adequate parking on-site, the Applicant is proposing one

parking space per employee plus 16 extra spaces, as well as the required number of ADA-accessible, bicycle, motorcycle, and loading spaces as required under the RDMC.

As provided in Table 2, below, and as shown on the Site plan, the Applicant proposes to provide the following parking facilities on-site:

*Table 2. Summary of Proposed On-Site Parking Facilities*

Parking Type	Number of Spaces
Standard Parking	33
ADA-Accessible Parking	2
Bicycle Parking	5
Motorcycle Parking	2
Loading Spaces	2

## **2.18 Landscaping**

Landscaping will be provided on-site in compliance with the City's Design Review (RDMC Section 17.25.050) and parking regulations (RDMC Section 17.30.220), including perimeter and interior parking lot landscaping.

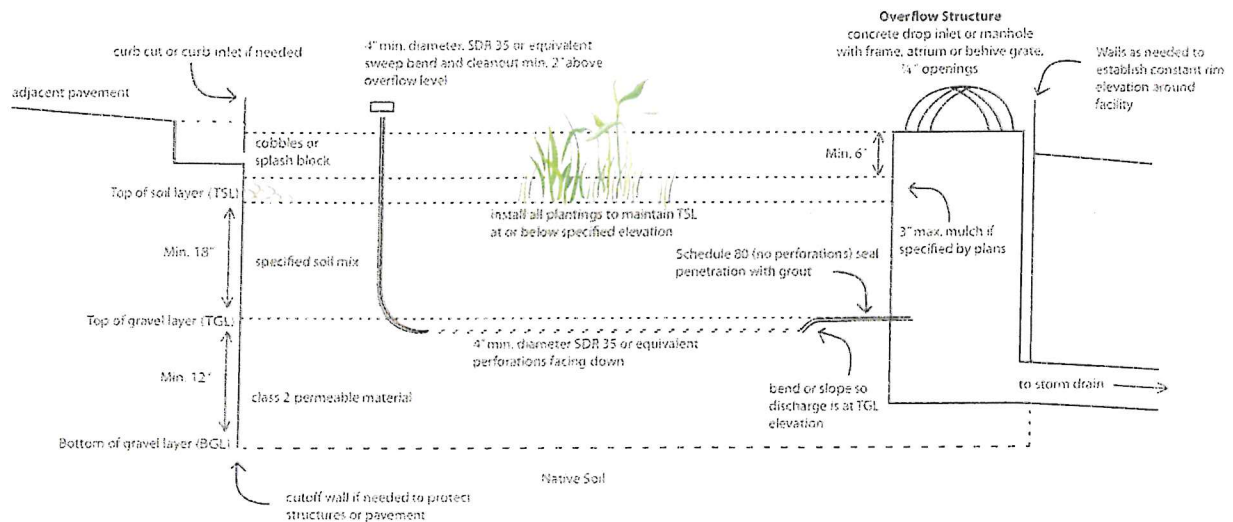


## APPENDIX 1

### **Humboldt County LID Bioretention Facility Guidelines**

## Bioretention Facility

not to scale



### Allowed variations for special site conditions:

- Facilities located within 10 feet of structures or other potential geotechnical hazards may incorporate an impervious cutoff wall
- Facilities with documented high concentrations of pollutants in underlying soil or groundwater, facilities where infiltration could contribute to a geotechnical hazard, and facilities located on elevated plazas or other structures may incorporate an impervious liner between the native soil and the BGL and locate the underdrain discharge at the BGL (flow-through planter configuration)
- Facilities located in areas of high groundwater, highly infiltrative soils, or where connection of the underdrain to a surface drain or subsurface storm drain are infeasible may omit the underdrain

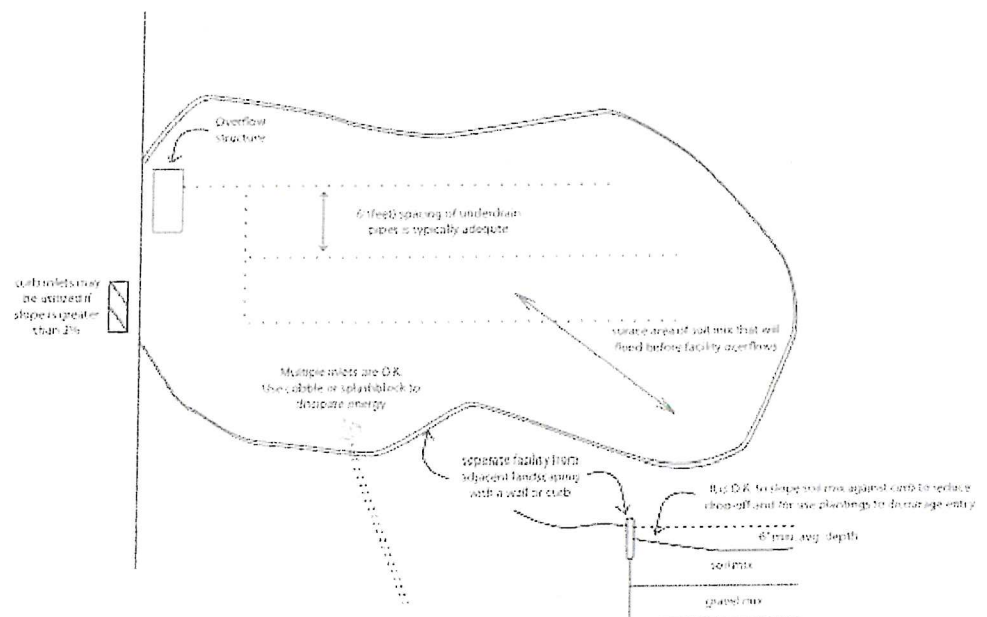
### Notes:

- No liner, no filter fabric, no landscape cloth.
- Maintain BGL, TGL, TSL throughout facility area at elevations to be specified in plan.
- Class 7 permeable layer may extend below and underneath drop inlet.
- Elevation or underdrain discharge is at top of gravel layer.
- See Section 6.3 for instructions on facility sizing and additional specifications



## Bioretention Facility - Overview

not to scale



### Note:

Show all elevations of curb, pavement, inlet, top of soil layer (TSL), top of gravel layer (TGL), and bottom of gravel layer (BGL) at all inlets and outlets and at key points along edge of facility.





## Soil/Compost and Gravel Specifications for Bioretention Facility

Compost shall be a well-decomposed, stable, weed-free organic matter source derived from waste materials including yard debris, wood wastes or other organic materials not including manure or biosolids, and shall meet the standards developed by the US Composting Council (USCC). The product shall be certified through the USCC Seal of Testing Assurance (STA) Program (a compost testing and information disclosure program).

### Compost Quality Analysis:

Before delivery of the soil, the supplier shall submit a copy of the lab analysis performed by a laboratory that is enrolled in the USCC's Compost Analysis Proficiency (CAP) program and using approved Test Methods for the Evaluation of Composting and Compost (TMECC). The lab report shall verify that the compost parameters are within the limits specified below.

Parameter	Range	Reported as (units)
Organic Matter Content	35-75	%, dry weight basis
Carbon to Nitrogen Ratio	15:1 to 25:1	ratio
Maturity (Seed Emergence and Seedling Vigor)	>80	average % of control
Stability (CO <sub>2</sub> Evolution Rate)	<8	mg CO <sub>2</sub> -C/g unit OM/day
Soluble Salts (Salinity)	<6.0	mmhos/cm
pH	6.5 - 8.0 May vary with plant species	units
Heavy Metals Content	PASS	PASS/FAIL: US EPA Class A standard, 40 CFR § 503.13, tables 1 and 3.
<b>Pathogens</b>		
Fecal coliform	PASS	PASS/FAIL: US EPA Class A standard, 40 CFR § 503.32(a) levels
Salmonella	PASS	PASS/FAIL: US EPA Class A standard, 40 CFR § 503.32(a) levels
<b>Nutrient Content (provide analysis, including):</b>		
Total Nitrogen (N)	≥0.9	%
Boron (Total B)	<80	ppm
Calcium (Ca)	For information only	%
Sodium (Na)	For information only	%
Magnesium (Mg)	For information only	%
Sulfur (S)	For information only	%

## Soil/Compost and Gravel Specifications for Bioretention Facility

### Gravel Layer

The gravel layer used in the bioretention facility must consist of *Class 2 Permeable Material* as specified in the State of California's Business, Transportation and Housing Agency, Department of Transportation; Standard Specifications 2010, manual ([http://www.dot.ca.gov/hq/esc/oe/construction\\_contract\\_standards/std\\_specs/2010\\_StdSpecs/2010\\_StdSpecs.pdf](http://www.dot.ca.gov/hq/esc/oe/construction_contract_standards/std_specs/2010_StdSpecs/2010_StdSpecs.pdf)).

The specific section, Subsurface Drains, Sec. 68, of the manual is used because it offers specific specifications for subsurface drains. In addition to the standardized permeable layer, a membrane layer of pea gravel or other intermediate-sized material is recommended at the top of the gravel layer to prevent fines from the soil/compost layer from moving downward into the gravel layer.

#### 68-2.02F (1) General

Permeable material for use in backfilling trenches under, around, and over underdrains must consist of hard, durable, clean sand, gravel, or crushed stone and must be free from organic material, clay balls, or other deleterious substances.

Permeable material must have a durability index of not less than 40.

#### 68-2.02F (3) Class 2 Permeable Material

The percentage composition by weight of Class 2 permeable material in place must comply with the grading requirements shown in the following table:

**Class 2 Permeable Material\* Grading Requirements**

Sieve sizes	Percentage passing
1"	100
3/4"	90-100
3/8"	40-100
No. 4	25-40
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3

\*Class 2 permeable material must have a sand equivalent value of not less than 75.

## Bioretention Facility Construction Checklist

### Layout (to be confirmed prior to beginning excavation permit approval stage)

- |                          |   |
|--------------------------|---|
| <input type="checkbox"/> | Square footage of the facility meets or exceeds minimum shown in Stormwater Control Plan  |
| <input type="checkbox"/> | Site grading and grade breaks are consistent with the boundaries of the tributary Drainage Management Area(s) (DMAs) shown in the Stormwater Control Plan                         |
| <input type="checkbox"/> | Inlet elevation of the facility is low enough to receive drainage from the entire tributary DMA   |
| <input type="checkbox"/> | Locations and elevations of overland flow or piping, including roof leaders, from impervious areas to the facility have been laid out and any conflicts resolved                  |
| <input type="checkbox"/> | Rim elevation of the facility is laid out to be level all the way around, or elevations are consistent with a detailed cross-section showing location and height of interior dams |
| <input type="checkbox"/> | Locations for vaults, utility boxes, and light standards have been identified so that they will not conflict with the facility  |
| <input type="checkbox"/> | Facility is protected as needed from construction-phase runoff and sediment   |

### Excavation (to be confirmed prior to backfilling or pipe installation)

- |                          |   |
|--------------------------|---|
| <input type="checkbox"/> | Excavation conducted with materials and techniques to minimize compaction of soils within the facility area |
| <input type="checkbox"/> | Excavation is to accurate area and depth  |
| <input type="checkbox"/> | Slopes or side walls protect from sloughing of native soils into the facility                               |
| <input type="checkbox"/> | Moisture barrier, if specified, has been added to protect adjacent pavement or structures.                  |
| <input type="checkbox"/> | Native soils at bottom of excavation are ripped or loosened to promote infiltration                         |

### Overflow or Surface Connection to Storm Drainage (to be confirmed prior to backfilling with any materials)

- |                          |   |
|--------------------------|---|
| <input type="checkbox"/> | Grating excludes mulch and litter (beehive or atrium-style grates recommended)                          |
| <input type="checkbox"/> | Overflow is connected to storm drain via appropriately sized  |
| <input type="checkbox"/> | No knockouts or side inlets are in overflow riser   |
| <input type="checkbox"/> | Overflow is at specified elevation  |
| <input type="checkbox"/> | Overflow location selected to minimize surface flow velocity (near, but offset from, inlet recommended) |
| <input type="checkbox"/> | Grating excludes mulch and litter (beehive or atrium-style grates recommended)                          |
| <input type="checkbox"/> | Overflow is connected to storm drain via appropriately sized  |



## Bioretention Facility Construction Checklist

### Underground connection to storm drain/outlet orifice

- ☐ Perforated pipe underdrain (PVC SDR 35 or approved equivalent) is installed with holes facing down
- ☐ Perforated pipe is connected to storm drain at specified elevation (typ. bottom of soil elevation)
- ☐ Cleanouts are in accessible locations and connected via sweep

### Drain Rock/Subdrain (to be confirmed prior to installation of soil mix)

- ☐ Rock is installed as specified, 12" min. depth. Class 2 permeable, Caltrans specification 68- 2.02F(3) recommended
- ☐ Rock is smoothed to a consistent top elevation. Depth and top elevation are as shown in plans
- ☐ Slopes or side walls protect from sloughing of native soils into the facility
- ☐ No filter fabric is placed between the subdrain and soil mix layers

### Soil Mix

- ☐ Soil mix is as specified.
- ☐ Mix installed in lifts not exceeding 12"
- ☐ Mix is not compacted during installation but may be thoroughly wetted to encourage consolidation
- ☐ Mix is smoothed to a consistent top elevation. Depth of mix (18" min.) and top elevation are as shown in plans, accounting for depth of mulch to follow and required reservoir depth

### Irrigation

- ☐ Irrigation system is installed so it can be controlled separately from other landscaped areas
- ☐ Smart irrigation controllers and drip emitters are recommended and may be required by local code or ordinance.
- ☐ Spray heads, if any, are positioned to avoid direct spray into outlet structures

## Bioretention Facility Construction Checklist

### Planting

- |                          |   |
|--------------------------|---|
| <input type="checkbox"/> | Plants are installed consistent with approved planting plan, consistent with site water allowance |
| <input type="checkbox"/> | Any trees and large shrubs are staked securely  |
| <input type="checkbox"/> | No fertilizer is added; compost tea may be used   |
| <input type="checkbox"/> | No native soil or clayey material are imported into the facility with plantings                   |
| <input type="checkbox"/> | 1"-2" mulch may be applied following planting; mulch selected to avoid floating                   |
| <input type="checkbox"/> | Final elevation of soil mix maintained following planting   |
| <input type="checkbox"/> | Curb openings are free of obstructions  |

### Final Engineering Inspection

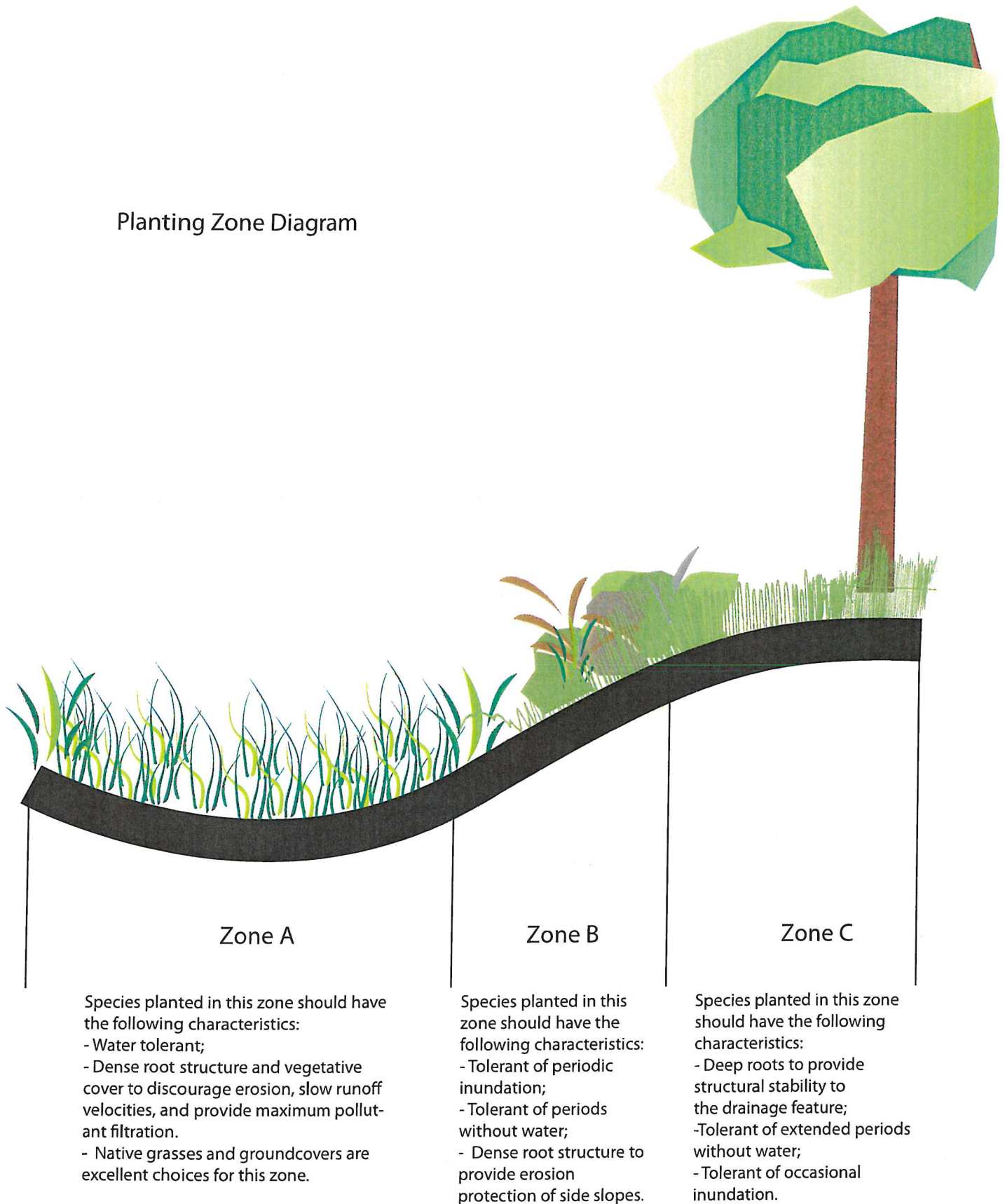
- |                          |  |
|--------------------------|--|
| <input type="checkbox"/> | Drainage Management Area(s) are free of construction sediment and landscaped areas are stabilized  |
| <input type="checkbox"/> | Inlets are installed to provide smooth entry of runoff from adjoining pavement, have sufficient reveal (drop from the adjoining pavement to the top of the mulch or soil mix, and are not blocked) |
| <input type="checkbox"/> | Inflows from roof leaders and pipes are connected and operable   |
| <input type="checkbox"/> | Temporary flow diversions are removed  |
| <input type="checkbox"/> | Rock or other energy dissipation at piped or surface inlets is adequate  |
| <input type="checkbox"/> | Overflow outlets are configured to allow the facility to flood and fill to near rim before overflow  |
| <input type="checkbox"/> | Plantings are healthy and becoming established   |
| <input type="checkbox"/> | Irrigation is operable   |
| <input type="checkbox"/> | Facility drains rapidly; no surface ponding is evident   |
| <input type="checkbox"/> | Any accumulated construction debris, trash, or sediment is removed from facility   |
| <input type="checkbox"/> | Permanent signage is installed and is visible to site users and maintenance personnel  |

## APPENDIX 5

### North Coast Stormwater Coalition LID Recommended Plant List



## Planting Zone Diagram









## North Coast Stormwater Coalition Low Impact Development Recommended Plant List

Zone A: Area of the LID facility defined as the bottom to the designed high water mark. This area has moist to wet soils and plants located here shall be tolerant of inundation.

Zone B: Area of the LID facility defined as the side slopes from the designed high water line up to the edge of the facility. This area typically has dryer to moist soils, with the moist soils being located further down the side slopes. Plants here should be drought tolerant and help stabilize the slopes.

	Name	Planting Zone	Facility Type			Characteristics				Additional Information	
	Common Name	Zone	Moisture Zone	Swale	Planter	Basin	NW Native	Evergreen	Height	Width	Sun Requirement
	Scientific Name										

### Shrubs









	Vine Maple <i>Acer circinatum</i>	A/B	wet, moderate	X	X	X	Y	N	15'	10'	shade to partial sun	small multi-stemmed tree, red-orange fall color, excellent soil binder
	American Dogwood <i>Cornus sericea</i>	A/B	wet, moderate	X	X	X	Y	N	6'	4'	shade to full sun	red twigs provide winter interest, white flowers in summer
	California Hazelnut <i>Corylus cornuta</i>	A/B	wet, moderate	X		X	Y	N	13'		shade to full sun	nuts attract wildlife
	Sala <i>Gaultheria shallon</i>	B	dry to moist	X		X	Y	Y	24'	24'	shade to sun	evergreen, produces edible blue berries
	Ocean Spray <i>Holodiscus discolor</i>	B	moderate, dry	X		X	Y	N	6'	4'	full to partial sun	flowers in summer, attractive to wildlife, good soil binder
	Twinberry <i>Lonicera involucrata</i>	B	dry	X		X	Y	N	5'	4'	prefers shade, sun tolerant	flowers attract humming birds and butterflies



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	Name		Planting Zone		Facility Type			Characteristics					Additional Information
	Common Name	Scientific Name	Zone	Moisture Zone	Swale	Planter	Basin	NW Native	Evergreen	Height	Width	Sun Requirement	
	Osoberry	<i>Oemleria cerasiformis</i>	B	moderate	X		X	Y	N	6'	4'	prefers full to partial shade, sun tolerant	produces greenish white flowers, berries attract birds
	Wild Mock-orange	<i>Oemleria cerasiformis</i>	B	dry	X		X	Y	N	6'	4'	partial sun	fragrant flowers attract birds, bees, and butterflies, prune to shape
	Pacific Ninebark	<i>Physocarpus capitatus</i>	A/B	wet, moderate	X	X	X	Y	N	10'	3'	full to partial sun	unique shredding bark, drought tolerant
	Western Azalea	<i>Rhododendron occidentale</i>	A/B	wet, moderate	X	X	X	Y	N	15'	12'	full sun to shade	showy flower clusters attract wildlife
	Red-flowering Currant	<i>Ribes sanguineum</i>	B	wet, moderate, dry	X		X	Y	N	8'	4'	full to partial sun	showy pink flower clusters in spring, attractive to birds
	Wood Rose	<i>Rosa gymnocarpa</i>	B	wet, moderate	X		X	Y	N	3'	3'	full to partial sun	flowers in summer
	Willow species	<i>Salix spp.</i>	A/B	wet, moderate	X		X	Y	N	13'+	6'	partial shade to sun	male and female catkins born on separate plants
	Red Elderberry	<i>Sambucus racemosa</i>	B	moderate	X		X	Y	N	10'	10'	prefers full sun, partial shade	flowers attract pollinators



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	Name  Common Name Scientific Name	Planting Zone		Facility Type			Characteristics					Additional Information
		Zone	Moisture Zone	Swale	Planter	Basin	NW Native	Evergreen	Height	Width	Sun Requirement	
	Douglas' Spiraea <i>Spiraea douglasii</i>	A/B	moderate	X	X	X	Y	N	7'	4'	full to partial sun	pinkish flower clusters in summer ; spreads rapidly ; drought tolerant once established
	Common Snowberry <i>Symphoricarpos albus</i>	B	moderate	X		X	Y	N	6'	3'	shade to full sun	flowers in spring, white berries in winter, excellent soil binder
	Evergreen Huckleberry <i>Vaccinium ovatum</i>	B/C	moderate, dry	X	X		Y	Y	9'	8'	partial sun	edible berries in late summer, new growth emerges bronze in color, requires acidic soil, prune to shape
	Red Huckleberry <i>Vaccinium parvifolium</i>	B	moist, dry	X	X		Y	N	13'	4'	full sun to partial shade	bell-shaped flowers, edible berry attracts wildlife

### Acknowledgements:

This guide was put together by Julie Neander and Camden Bruner of the City of Arcata Environmental Services Department and by Jen Kalt of Humboldt Bay Keeper. The information presented here is from the *Portland Stormwater Management Manual; Planting Templates and Lists*, by the City of Portland and *The Oregon Rain Garden Guide*, by Oregon Sea Grant. Used by permission. Photographs are from *A Photographic Guide to the Plants of Humboldt Bay Dunes and Wetlands*, compiled by Gordon Leppig and Andrea J. Pickart and from *Calphotos*, by the University of California, Berkely. Used by permission.

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Name	Planting Zone		Facility Type			Characteristics					Additional Information
	Common Name <i>Scientific Name</i>	Zone	Moisture Zone	Swale	Planter	Basin	NW Native	Evergreen	Height	Width	Sun Requirement

### Herbs



Common Yarrow <i>Achillea millefolium</i>	C	moderate, dry					N	N	36"	24"	full to partial sun	summer flowers, tolerates regular to no watering
--	---	---------------	--	--	--	--	---	---	-----	-----	---------------------	--



Pearly Everlasting <i>Anaphalis margaritacea</i>	C	dry					Y	N	48"	12"	full sun	popular dried flower
---	---	-----	--	--	--	--	---	---	-----	-----	----------	----------------------



Crimson Columbine <i>Aquilegia formosa</i>	B	wet					Y	N	30"	12"	full to partial sun	red and yellow flowers attract hummingbirds, heavy bloomer
---	---	-----	--	--	--	--	---	---	-----	-----	---------------------	--



Wild Ginger <i>Asarum caudatum</i>	B	moist					Y	Y	10"	20"	shade/part	bold heart shaped leaves, pleasant fragrance, ornate flowers, evergreen perennial
---------------------------------------	---	-------	--	--	--	--	---	---	-----	-----	------------	---



Common California Aster <i>Symphyotrichum chilense</i>	B	dry to moist					Y	N	40"		full sun to partial shade	attracts native pollinators including bees, moths and butterflies
---	---	--------------	--	--	--	--	---	---	-----	--	---------------------------	---



Lady Fern <i>Athyrium filix-femina</i>	B	moist	X		X		Y	N	36"	24"	shade	deciduous, low maintenance
---	---	-------	---	--	---	--	---	---	-----	-----	-------	----------------------------

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## North Coast Stormwater Coalition Low Impact Development Recommended Plant List

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	Name		Planting Zone		Facility Type			Characteristics					Additional Information
	Common Name	Scientific Name	Zone	Moisture Zone	Swale	Planter	Basin	NW Native	Evergreen	Height	Width	Sun Requirement	
	Deer Fern	<i>Blechnum spicant</i>	B	wet, moderate	X		X	Y	N	24"	24"	shade to partial sun	attracts deer
	California Brome	<i>Bromus carinatus</i>	A	moderate, dry			X	Y	Y	18"	12"	full to partial sun	native competitor to exotic weeds
	Dense Sedge	<i>Carex densa</i>	A	wet, moderate, dry	X			Y	Y	24"	12"	full sun to shade	good erosion control, trapping sediment and slowing the flow of water
	Short-scaled Sedge	<i>Carex leptopoda</i>	A	wet	X			Y	Y	30"		full	perennial herb
	Tufted Hairgrass	<i>Deschampsia caespitosa</i>	A/B	moderate	X			Y	N	36"	12"	full/part	attractive throughout winter
	Pacific Bleeding Heart	<i>Dicentra formosa</i>	B	moderate, dry				Y	N	2'	2'	shade/part	delicate foliage with attractive spring flowers
	Blue Wildrye	<i>Elymus glaucus</i>	B	moderate	X		X	Y	Y	24"	12"	full sun to light shade	perennial, distinct blue to blue-green colored leaves



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	Name		Planting Zone		Facility Type			Characteristics					Additional Information
	Common Name	Scientific Name	Zone	Moisture Zone	Swale	Planter	Basin	NW Native	Evergreen	Height	Width	Sun Requirement	
	Seaside Daisy	<i>Erigeron glaucus</i>	B	moderate				Y	N	12"		full to partial sun	lavendar colored flowers that attract pollinators
	California Fescue	<i>Festuca californica</i>	B/C	moderate				Y	N	4.5'	3.5'	shade to partial sun	drought tollerant, stabilizes soils & prevents erosion,
	Idaho Fescue	<i>Festuca idahoensis</i>	B/C	moderate				Y	N	30"	24"	shade to full sun	grows in bunches
	Red Fescue	<i>Festuca rubra</i>	B	moderate	X		X	Y	Y	24"	12"	shade to partial sun	no-mow ground cover
	Beach Strawberry	<i>Fragaria chiloensis</i>	B	moderate, dry	X		X	Y	Y	6"	12"	full to partial sun	edible red berries, grows well in sandy soils
	Wood Strawberry	<i>Fragaria vesca</i>	B	moderate, dry	X		X	N	Y	10"	12"	shade/part	edible red berries
	Western Mannagrass	<i>Glyceria occidentalis</i>	A	wet, moderate			X	Y	Y	18"	12"	full sun to partial shade	does well in detention ponds and swales
	Small-flowered Alumroot	<i>Heuchera micrantha</i>	B	wet, moderate				Y	N	3.5'		full sun to part shade	distinct green to dark purple colored leaves; can grow on steep slopes



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	Name		Planting Zone		Facility Type			Characteristics					Additional Information
	Common Name	Scientific Name	Zone	Moisture Zone	Swale	Planter	Basin	NW Native	Evergreen	Height	Width	Sun Requirement	
	Douglas Iris	<i>Iris douglasiana</i>	B	moist to dry	X		X	Y	N	18"	12"	full to partial sun	cream-purple flowers arise on a 1-2 foot high stem; grows well in run-off ditches
	Common Rush	<i>Juncus effusus</i> var. <i>pacificus</i>	A	wet, moderate	X	X	X	Y	Y	36"	12"	full sun to part shade	tolerant of polluted conditions, Note that <i>J. effusus</i> var. <i>effusus</i> can be invasive, use native Pacific variety
	Dagger-leaf Rush	<i>Juncus ensifolius</i>	A	wet, moderate	X	X	X	N	N	10"	12"	full/part	flattened stems much like an iris; spreads vigorously
	Spreading Rush	<i>Juncus patens</i>	A	wet, moderate	X	X	X	N	Y	36"	12"	full/part	bluish-green foliage; very little maintenance
	Large-leaved Lupine	<i>Lupinus polyphyllus</i>	A/B	moderate	X		X	Y	N	36"	12"	full/part	showy spring flowers, fixes nitrogen
	False Lily-of-the-valley	<i>Maianthemum dilatatum</i>		wet, moderate				Y		16"		shade	ground cover; can form broad mats
	Gray Beartongue	<i>Penstemon rattanii</i> var. <i>rattanii</i>	B	moderate				Y	N	48"		full sun to part shade	attracts native pollinators including bumble bees
	Sword Fern	<i>Polystichum munitum</i>	A/B	wet, moderate	X		X	Y	Y	24"	24"	full/part	shiny, leathery leaves

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## North Coast Stormwater Coalition Low Impact Development Recommended Plant List

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	Name		Planting Zone		Facility Type			Characteristics					Additional Information
	Common Name	Scientific Name	Zone	Moisture Zone	Swale	Planter	Basin	NW Native	Evergreen	Height	Width	Sun Requirement	
	Cinquefoil	<i>Potentilla gracilis</i>	B/C	moderate, dry				Y	N	40"		full/part	flowers attract native bees
	Three-squared Bulrush	<i>Schoenoplectus americanus</i>	A	wet				Y	N	7'		full/part	native perennial
	Small-flowering Bulrush	<i>Scirpus microcarpus</i>	A	moderate			X	Y	Y	24"	24"	full/part	good soil binder
	Golden-eyed-grass	<i>Sisyrinchium californicum</i>	A/B	moist	X	X	X	N	Y	6"	12"	full to partial sun	produces bright yellow flowers that attract many beneficial insects
	Coast Goldenrod	<i>Solidago spatulata</i>	B	moderate				Y	N	20"		full to partial sun	bright yellow flowers attract butterflies and other insects
	Fringe Cups	<i>Tellima grandiflora</i>	B	moderate				Y	N	12"		shade	flowers age changing from green to pink
	Youth-on-age	<i>Tolmiea diplomenziesii</i>	B	wet, moderate				Y	N	15"		shade	perennial herb

### Acknowledgements:

This guide was put together by the City of Arcata Environmental Services Department and Humboldt Bay Keeper. The information presented here is from the *Portland Stormwater Management Manual: Planting Templates and Lists*, by the City of Portland and *The Oregon Rain Garden Guide*, by Oregon Sea Grant. Used by permission. Photographs are from *A Photographic Guide to the Plants of Humboldt Bay Dunes and Wetlands*, compiled by Gordon Leppig and Andrea J. Pickart and from *Calphotos*, by the University of California, Berkeley. Used by permission.



## APPENDIX 2

### **On-Site Wastewater Treatment System Test Results**



March 26, 2020

9592.02

Northwestern 102, LLC  
3280 Ramos Circle  
Sacramento, CA 95827

Subject: On-Site Wastewater Treatment System Test Results  
Assessor's Parcel Number 205-111-074  
1325 Northwestern Avenue, Rio Dell, California

Attention: Mr. Sean Suh

Dear Mr. Suh:

Northwestern 102, LLC (Client) retained LACO Associates (LACO) to determine the suitability of the proposed site for a private on-site wastewater treatment system at 1325 Northwestern Avenue in the City of Rio Dell. The project site (Site) is located in the northeastern portion of Section 36, Township 2 North, Range 1 West, Humboldt Baseline and Meridian, of the Fortuna 7.5-Minute Series Quadrangle and is identified as Assessor's Parcel Number 205-111-074 (Figure 1). This evaluation of septic suitability with design recommendations is for a standard gravity on-site wastewater disposal system for restroom facilities for up to 30 employees.

LACO conducted a wastewater treatment system exploration in accordance with the current Humboldt County Sewage Disposal Regulations and North Coast Basin Plan standards within the proposed sewage disposal area of the Site. LACO subcontracted for backhoe services to excavate test pits during the field exploration. A LACO geologist characterized, logged, and sampled soils. Two test pits were installed to a maximum depth of 10 feet below ground surface (bgs). We described soil textures in general accordance with the United States Department of Agriculture (USDA) and noted depths to limiting conditions and/or initial groundwater, if encountered.

We conducted percolation tests at approximately 4 to 4.5 feet bgs for both the primary and reserve areas in anticipation of a standard gravity system. Laboratory tests for soil texture were conducted on samples in accordance with the testing methods prescribed by Humboldt County Division of Environmental Health and North Coast Regional Water Quality Control Board.

The Site is located on an uplifted river terrace composed and underlain by various unconsolidated sediments including silt loam, loam, sandy loam, and loamy sand. The geology is mapped as Holocene/Pliocene River terrace deposits, dominantly sands and gravels, with silts, and clays (USGS, 2000). The Site is located at an elevation of approximately 80 feet above mean sea level and is relatively flat.

On March 6, 2020, a professional geologist from LACO observed two excavated test pits (BP-1 and BP-2) to depths of 10 feet below ground surface (bgs). Test pits were located in the proposed primary and 100 percent reserve area leach fields (Figure 2). Free groundwater was not observed in the test pits. Test pits were field logged and discrete depth intervals sampled for laboratory textural analysis on each sample.

Analysis of samples collected from backhoe pit BP-1 recorded loam texture Zone 2. Laboratory analysis of samples collected from backhoe pit BP-2 recorded a sandy loam texture Zone 2 soil texture. Soil logs and soil textural analysis worksheets are included in Attachment 1.

Percolation testing was conducted during our site visit on March 6, 2020, in test pits excavated to a depth of 4 feet by the backhoe. The percolation test pits were hand dug from 4 to 4.5 feet bgs. Percolation test data sheets are found in Attachment 2. For design purposes, a loading rate of 0.554 gallons per day per square foot (ft<sup>2</sup>) for the sizing the primary and reserve area leach fields was utilized. Loading rates are derived from Table 2 of the Humboldt County Onsite Wastewater Treatment System (OWTS) Regulations and Technical Manual and are based on percolation test results.

The proposed sewage disposal areas appear suitable for a standard gravity disposal system consisting of a gravity-fed, single field with 100 percent reserve area as defined by the Humboldt County Division of Environmental Health. A minimum of 1,200-gallon septic tank will be required to serve the proposed two restrooms for a maximum planned 30 employees. The size of the primary and reserve leach fields will be based on the following:

Primary and 100 Percent Reserve:

- 5-foot deep absorption field trenches;
- 5 ft<sup>2</sup> of absorption trench sidewall per linear foot of trench;
- 30 employees with a daily water usage of 450 gallons per day;
- Loading rate of 0.554 gallons/day/ft<sup>2</sup>; and
- Use of 165 feet of leach line for the primary.

A system layout and typical trench diagram are included for the Site as Figures 2 and 3. A typical distribution box design is included as Figure 4. Calculations made to determine the size of the primary and 100 percent reserve area leach fields are included as Attachment 3.

LACO would like to thank you for the opportunity to be of assistance. Please feel free to call us at 707-443-5054 if you have any questions or need additional information.

Sincerely,  
LACO Associates

Gary L. Manhart, PG 7169, Exp. 10/31/20  
Senior Professional Geologist



GLM:mmm



## FIGURES

<b>Figure 1</b>	<b>Location Map</b>
<b>Figure 2</b>	<b>Site Map</b>
<b>Figure 3</b>	<b>Typical Trench Layout</b>
<b>Figure 4</b>	<b>Typical Distribution Box</b>

# LACO

EUREKA • UKIAH • SANTA ROSA

1-800-515-5054 www.lacoassociates.com

PROJECT NW102: CANNABIS ENTITLEMENTS

CLIENT NORTHWESTERN 102, LLC

LOCATION 1325 NORTHWESTERN, RIO DELL, CA

LOCATION MAP

BY SJM

DATE 03/24/2020

CHECK CSM

SCALE AS SHOWN

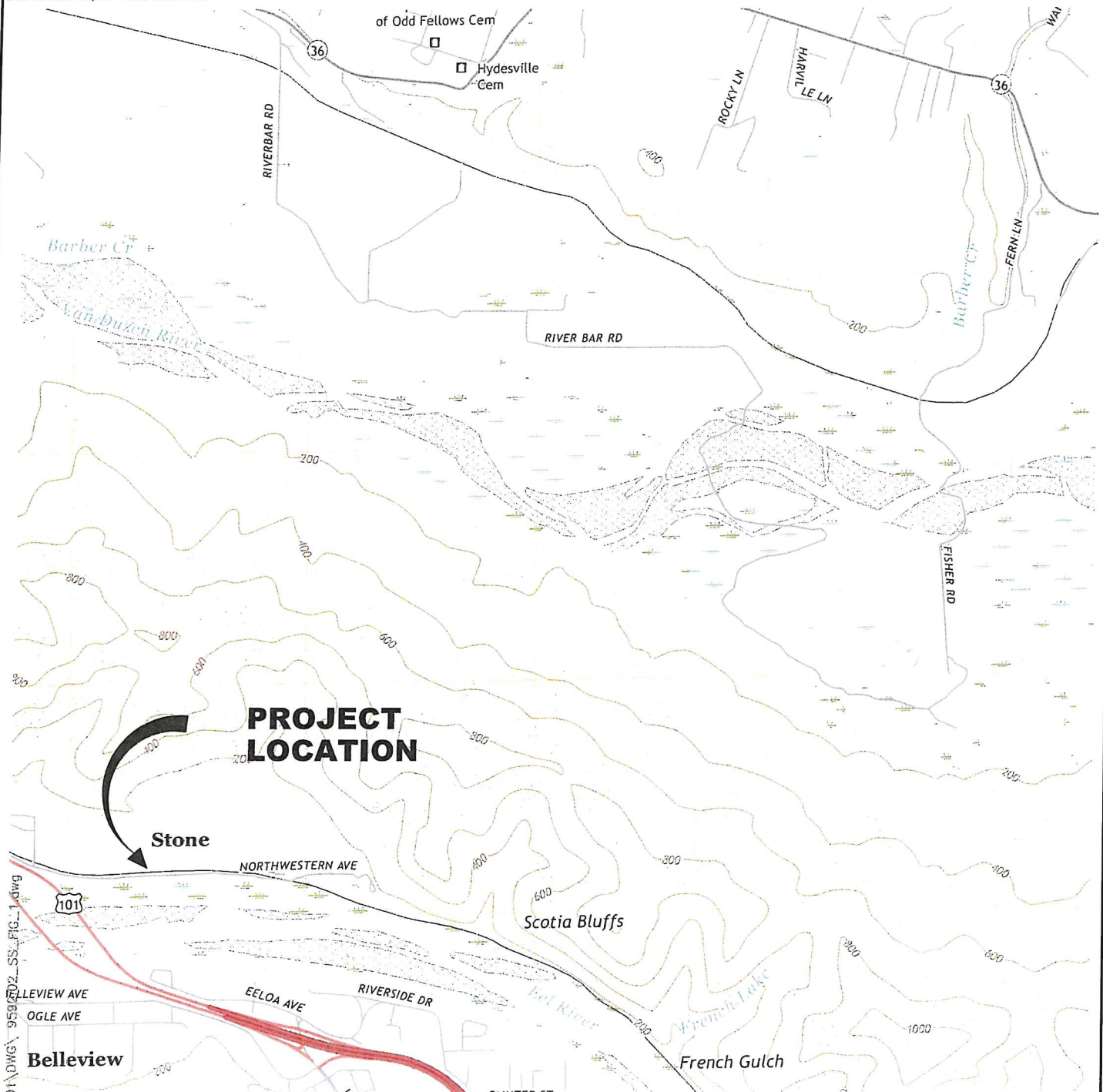
FIGURE

1

JOB NO.

9592.02

REUSE OF DOCUMENTS: This document and the ideas and design incorporated herein, as an instrument of professional service, is the property of LACO Associates and shall not be reused in whole or part for any other project without LACO Associates express written authorization.



## NOTES:

1. IMAGE SHOWN HEREON IS FROM USGS.
2. ALL LOCATIONS ARE APPROXIMATE.

0 1000' 2000'

SCALE: 1"=2000'



Mar 26, 2020--2:43pm  
T:\Cadfiles\9500\9592.02 NW101\DWG\9592.02\_SS\_FIG\_1.dwg



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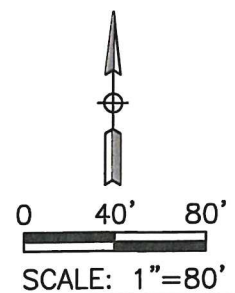
PROJECT	NW102: CANNABIS ENTITLEMENTS	BY	SJM	FIGURE	2
CLIENT	NORTHWESTERN 102, LLC	DATE	03/24/2020	JOB NO.	9592.02
LOCATION	1325 NORTHWESTERN, RIO DELL, CA	CHECK	CSM		
	SITE MAP	SCALE	AS SHOWN		

REUSE OF DOCUMENTS: This document and the ideas and design incorporated herein, as an instrument of professional service, is the property of LACO Associates and shall not be reused in whole or part for any other project without LACO Associates express written authorization.



## NOTES:

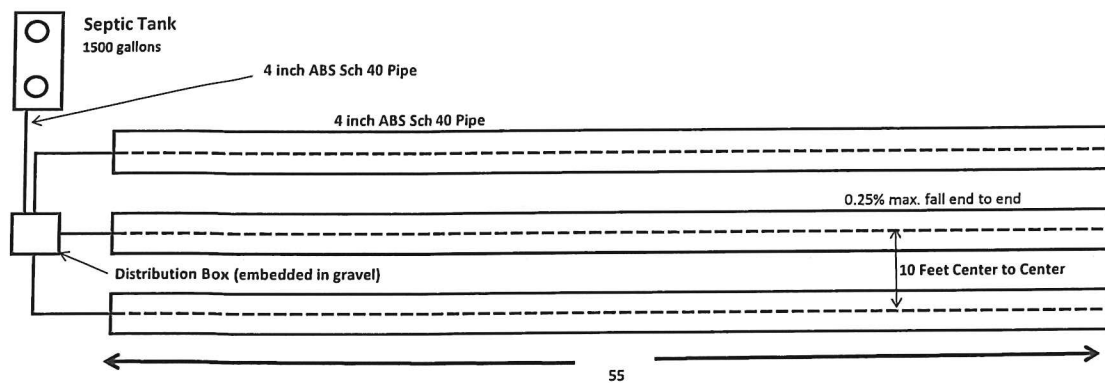
1. IMAGE SHOWN HEREON IS FROM GOOGLE EARTH.
2. ALL LOCATIONS ARE APPROXIMATE.
3. BP = BACKHOE PIT LOCATION



Mar 26, 2020 - 2:44pm  
F:\Cadfiles\9592.02 NW101



**Figure 3**

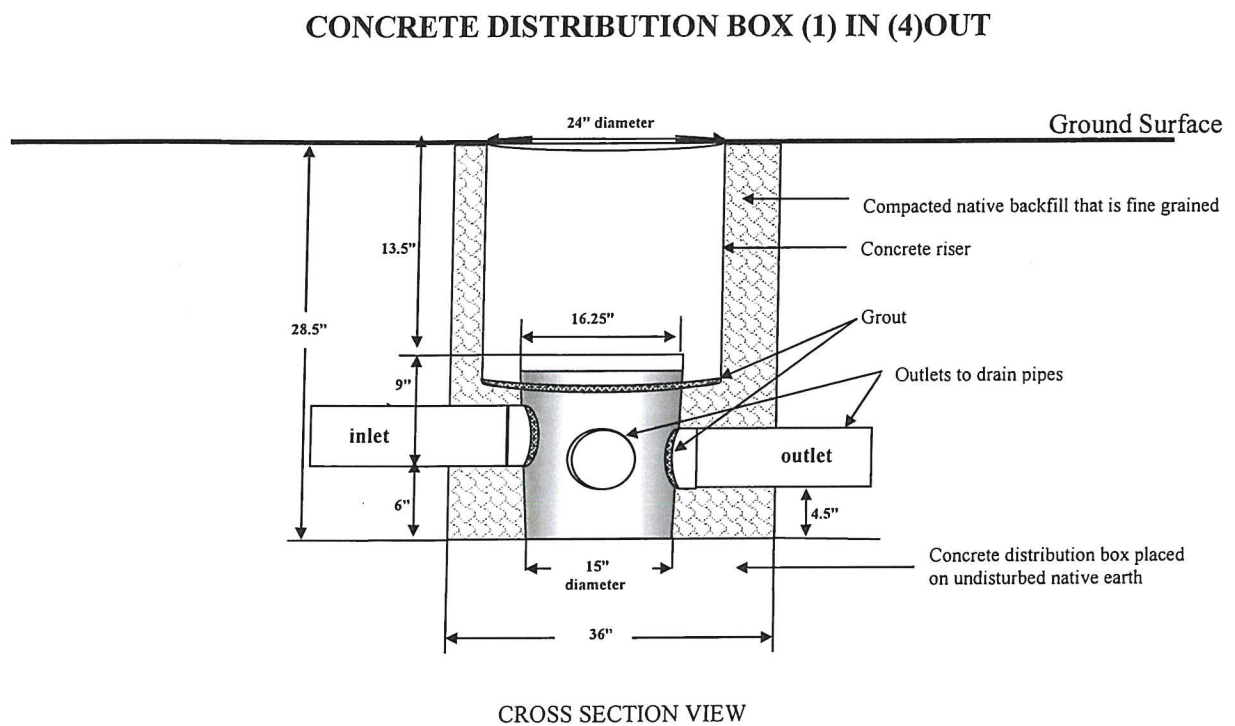


Not to Scale

### Standard Septic Tank and Gravity Leach Trenches

- 1) Trenches shall be installed along natural land contours.
- 2) Trenches shall be installed in the approved area.
- 3) Stumps located in the proposed absorption and replacement area should be ground instead of pulled so that the native earth will remain

FIGURE 4










## ATTACHMENT 1

### **Soil Logs and Soil Textural Analysis Worksheets**



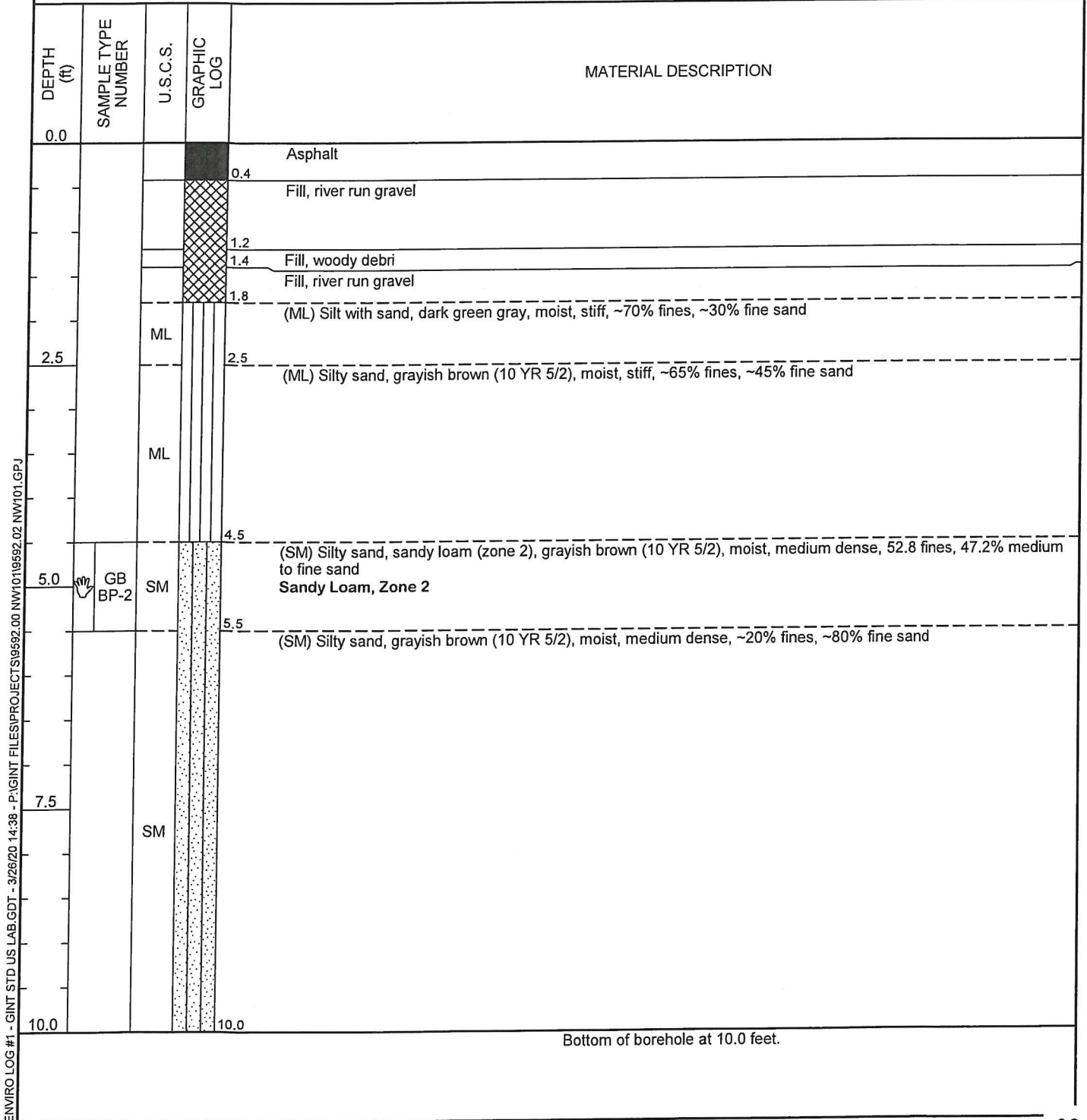
CLIENT NW102: Cannabis Entitlements PROJECT NAME Northwestern 102, LLC  
 PROJECT NUMBER 9592.02 PROJECT LOCATION 1325 Northwestern Ave, Rio Dell CA  
 DATE STARTED 3/6/20 COMPLETED 3/6/20 GROUND ELEVATION \_\_\_\_\_ HOLE SIZE 24 inches  
 DRILLING CONTRACTOR Julien Construction GROUND WATER LEVELS:  
 DRILLING METHOD Backhoe AT TIME OF DRILLING —  
 LOGGED BY GLM CHECKED BY \_\_\_\_\_ AT END OF DRILLING —


NOTES \_\_\_\_\_

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0				
				Asphalt
				Fill, river run gravel
				1.5
		ML		(ML) Silt, dark green gray, moist, stiff, no plasticity, ~60% fines, ~40% sand
				1.8
				(SM) Silty sand, grayish brown (10 YR 2/2), moist, medium dense, ~49% fines, ~51% sand
2.5		SM		
				3.5
		SM		(SM) Silty sand, brown (10 YR 5/3), moist, medium dense, ~40% fines, ~60% fine sand
				4.5
5.0	GB	SM		(SM) Silty sand, loam (zone 2), brown (10 YR 5/3), moist, medium dense, 50.6% fines, 49.4% medium to fine sand Loam, Zone 2
				5.5
				(SP) Poorly graded sand, brown (10 YR 5/3), moist, medium dense, ~20% fines, ~80% fine sand
7.5		SP		
10.0				
				10.5
Bottom of borehole at 10.5 feet.				

ENVIRO LOG #1 - GINT STD US LAB.GDT - 3/26/20 14:38 - P:\GINT FILES\PROJECTS\9592.00 NW101\9592.02 NW101.GPJ

CLIENT NW102: Cannabis Entitlements PROJECT NAME Northwestern 102, LLC  
 PROJECT NUMBER 9592.02 PROJECT LOCATION 1325 Northwestern Ave, Rio Dell CA  
 DATE STARTED 3/6/20 COMPLETED 3/6/20 GROUND ELEVATION \_\_\_\_\_ HOLE SIZE 24 inches  
 DRILLING CONTRACTOR Julien Construction GROUND WATER LEVELS:  
 DRILLING METHOD Backhoe AT TIME OF DRILLING —  
 LOGGED BY GLM CHECKED BY \_\_\_\_\_ AT END OF DRILLING —  
 NOTES \_\_\_\_\_



 21 W. 4th Street Eureka CA 95501	<b>TEXTURAL ANALYSIS</b>		Page 1	Project No. 9592.02
	Project NW 101 CANNABIS ENTITLEMENTS		Tested By CCR	Date 3/18/2020
	Location RIO DELL		Checked By	Date
	Client NORTHWESTERN 101		Sample ID: 20-021EK	

Sample Location	Sample Depth	Total Sample (gm)	Retained on #10 Sieve (gm)	Passing #10 Sieve (gm)	Retained on #10 Sieve (%)	Passing #10 Sieve (%)	Coarse Adjustment (%)
BP-1	4.5	528.1	0.0	528.1	0.0	100.0	0.0
BP-2	4.5	551.4	0.4	551.0	0.1	99.9	0.0

### WORK SHEET FOR SOIL TEXTURE (Water Quality Control Board Method)

BP-1	BP-2		
4.5	4.5		
66.6	61.9		
6:27:00 AM	6:34:00 AM		
69	69		
40	39		
-6.3	-6.3		
34	33		
67	67		
18	11		
-6.7	-6.7		
11	4		
49.4	47.2		
17.0	6.9		
33.6	45.9		
2	2		
LOAM	SANDY LOAM		
50.6	52.8		

#### SAMPLE DESCRIPTION

#### SAMPLE DEPTH

- A. Owendry Weight (gm)
- B. Starting Time (hr: min: sec)
- C. Temp @ 40 sec. (°F)
- D. Hydrometer Reading @ 40 sec. (gm/l)
- E. Composite Correction (gm/l)
- F. True Density @ 40 sec. (gm/l), (D - E)
- G. Temp. @ 2 hrs. (°F)
- H. Hydrometer Reading @ 2 hrs. (gm/l)
- I. Composite Correction (gm/l)
- J. True Density @ 2 hrs. (gm/l), (H - I)
- K. % Sand =  $100 - [(F/A) \times 100]$
- L. % Clay =  $(J/A) \times 100$
- M. % Silt =  $100 - (K+L)$
- N. USDA Texture
- O. Soil Percolation Suitability Chart Zone
- P. Combine % Silt and Clay



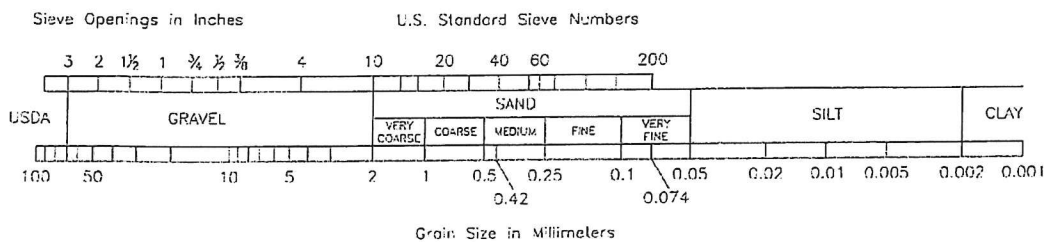
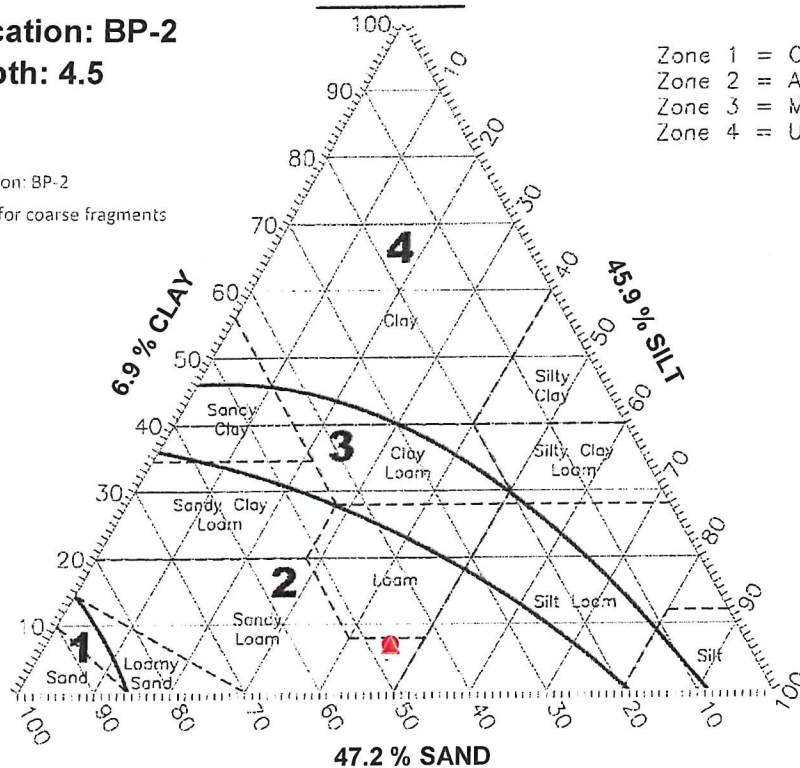
<b>SOIL SUITABILITY CHART</b>		Page 2	Project No. 9592.02
Project NW 101 CANNABIS ENTITLEMENTS		Tested By CCR	Date 3/18/2020
Location RIO DELL		Checked By 0	Date 1/0/1900
Client NORTHWESTERN 101		Sample ID: 20-021EK	

## SOIL PERCOLATION SUITABILITY CHART

**Sample Location: BP-2**  
**Sample Depth: 4.5**

- Sample Location: BP-2
- ▲ Adjusted 0 % for coarse fragments

Zone 1 = Coarse  
Zone 2 = Acceptable  
Zone 3 = Marginal  
Zone 4 = Unacceptable



### INSTRUCTIONS:

- Plot texture on triangle based on percent sand, silt, and clay as determined by hydrometer analysis.
- Adjust for coarse fragments by moving the plotted point in the sand direction an additional 2% for each 10% (by volume) of fragments greater than 2mm in diameter.
- Adjust for compactness of soil by moving the plotted point in the clay direction an additional 15% for soils having a bulk-density greater than 1.7 gm/cc.

## SOIL SUITABILITY CHART

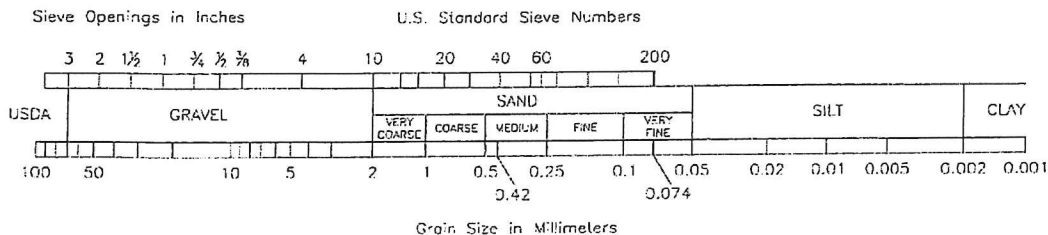
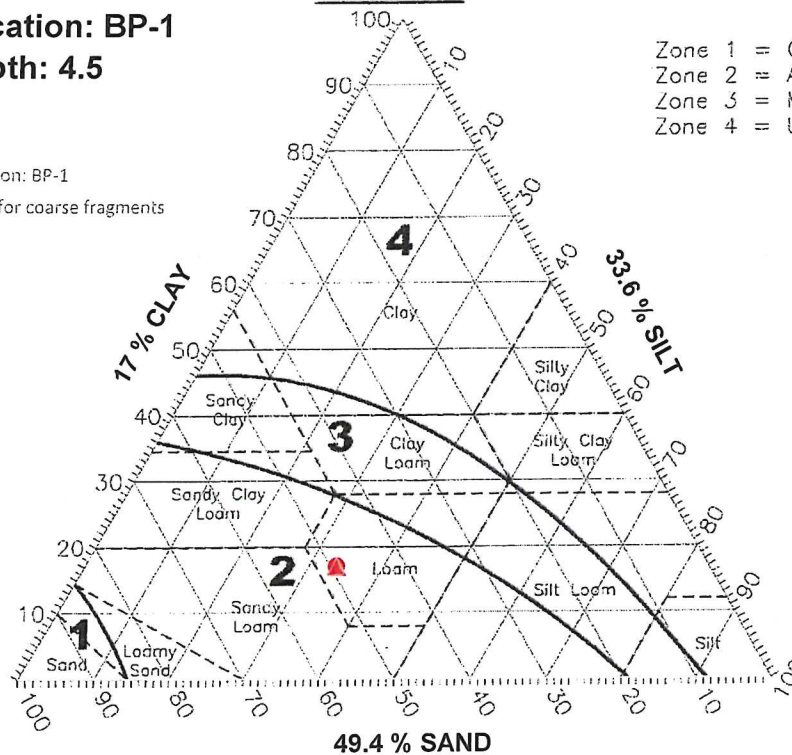
Page	2	Project No.	9592.02
Project	NW 101 CANNABIS ENTITLEMENTS	Tested By	CCR
Location	RIO DELL	Checked By	0
Client	NORTHWESTERN 101	Date	3/18/2020
		Sample ID:	20-021EK

## SOIL PERCOLATION SUITABILITY CHART

Sample Location: BP-1  
Sample Depth: 4.5

- Sample Location: BP-1
- ▲ Adjusted 0 % for coarse fragments

Zone 1 = Coarse  
Zone 2 = Acceptable  
Zone 3 = Marginal  
Zone 4 = Unacceptable



On-Site Wastewater Treatment System Test Results  
Assessor's Parcel Number 205-111-074  
Northwestern 102, LLC; LACO Project No. 9592.02  
March 26, 2020

## ATTACHMENT 2

### **Percolation Test Data Sheet**



# **SOILS PERCOLATION TEST DATA SHEET**

CLIENT Sean Suh  
 JOB NO. 9592.02  
 TEST PIT NO. BP-1  
 DEPTH TESTED 4 to 4.55  
 DEPTH TO GW >10'  
 PRESOAK Four complete refills: four complete refills

DATE 8/3/2017  
 A.P.N. 205-111-074  
 TESTED BY GLM  
 LOCATION Rio Dell

1 hour presoak: 12:00 to 1:00

Reading No.	Start Time	Stop Time	Δ Time (min.)	Initial Water Level (in.)	Final Water Level (in.)	Δ Water Level (in.)	Rate (min./in.)
1	1:00	1:15	15	6	3 1/2	2 1/2	6.00
2	1:16	1:31	15	6	3 3/4	2 1/4	6.67
3	1:32	1:47	15	6	3 7/8	2 1/8	7.06
4	1:48	2:03	15	6	4 1/4	1 3/4	8.57
5	2:04	2:19	15	6	4 1/2	1 1/2	10.00
6	2:20	2:35	15	6	4 1/2	1 1/2	10.00
7							
8							
STABILIZED RATE =							<b>10.00</b>

TEST PIT NO. BP-2  
 DEPTH TESTED 4 to 4.5  
 DEPTH TO GW >10'  
 PRESOAK Four complete refills: four complete refills

TESTED BY GLM

1 hour presoak: 12:05 to 1:05

Reading No.	Start Time	Stop Time	Δ Time (Minutes)	Initial Water Level (in.)	Final Water Level (in.)	Δ Water Level Drop (in.)	Rate (Minutes Per Inch)
1	1:05	1:20	15	7	4 3/4	2 1/4	6.67
2	1:21	1:36	15	7	5	2	7.50
3	1:37	1:52	15	7	5	2	7.50
4	1:53	2:08	15	7	5 1/8	1 7/8	8.00
5	2:09	2:24	15	7	5 1/4	1 3/4	8.57
6	2:25	2:40	15	7	5 1/4	1 3/4	8.57
7							
8							
STABILIZED RATE =							<b>8.60</b>

TEST PIT NO. \_\_\_\_\_  
 DEPTH TESTED \_\_\_\_\_  
 DEPTH TO GW \_\_\_\_\_  
 PRESOAK Four complete refills:

TESTED BY \_\_\_\_\_

1 hour presoak:

Reading No.	Start Time	Stop Time	Δ Time (Minutes)	Initial Water Level (in.)	Final Water Level (in.)	Δ Water Level Drop (in.)	Rate (Minutes Per Inch)
1							
2							
3							
4							
5							
6							
7							
8							
STABILIZED RATE =							

## ATTACHMENT 3

### **Primary and 100 Percent Reserve Area Leach Field Size Calculations**

**PRIMARY DISPOSAL FIELD AND 100 PERCENT RESERVE AREA DESIGN  
CALCULATIONS**

Northwestern 101, LLC  
1325 Northwestern Avenue, Rio Dell, California  
APN 205-111-074  
LACO Job No. 9592.02

**Setbacks for Primary and Reserve Fields:**

Properties will utilize a private water source on proposed parcels

Ocean, bay and ponds: >100 feet

Perennial Stream: >100 feet

Ephemeral Stream: >100 feet

Springs: >100 feet

Property Line: >10 feet (water service)

Foundation of Building: >10 feet

Wells: 100 feet minimum distance (Well to be installed)

Water Main: N/A

Slope Breaks in excess of 25°: >25 feet

Depth to seasonal high groundwater: 3.5 feet below ground surface

**Primary Disposal Field Design Calculations**

- USDA Soil Classification: Loam Zone 2 and Silty Loam, Zone 2 (laboratory textural analysis)
- 450 gallons per day - 30 employees (design for 30 employees at 15 gallons per employee per day)  
 $15 \text{ gpd} \times 30 \text{ employees} = 450 \text{ gpd}$
- Tank Sizing: Use dual-chambered **1500-gallon** septic tank
- Application Rate Based on percolation test at the site. See Attachment 2:  
Use **0.554 gpd/ft<sup>2</sup> (using 10 minutes per inch)**
- Absorption Area Required for Primary Disposal Field and 100% Reserve Area:  
= Daily Flow/Application Rate  
=  $450 \text{ gpd} / 0.554 \text{ gpd/ft}^2$   
= **812.3 ft<sup>2</sup>, Use 813 ft<sup>2</sup>**
- Absorption Trench Length Required Using Standard Drainpipe:  
Assume 5 ft<sup>2</sup> of infiltrative sidewall surface per linear foot of trench  
 $813 \text{ ft}^2 / 5 \text{ ft}^2/\text{ft} = 162.5 \text{ ft}$   
**Install a minimum of 163 ft of absorption trench**



- Primary Disposal Field System Layout:
  - a) Remove all the asphalt a minimum of 5 feet beyond the limits of the drainfield. A drainage swale should be installed to divert surface flow away from the drain field.
  - b) Install 3 absorption field trenches totaling 55 feet in length, 60 inches deep, and 18 inches wide;
  - c) Trenches are to be spaced 10 feet apart (center to center) If necessary;
  - d) Each trench is to contain a minimum of 55 feet of 4-inch drainpipe with perforated inverts; or any combination of lines that equals 163 feet.
  - e) The drainpipe is to be installed at a depth of 2.5 feet below existing grade in order to allow for a minimum of 2% fall from septic tank to distribution box (to be verified in field by contractor);
  - f) Each trench is to contain 40 inches of drain rock (includes 6-inch rock cover over drainpipe);
  - g) Drain rock is to be covered with filter fabric and the trenches backfilled to existing grade with excavated native sandy Loam soil;
  - h) The top of the trenches should be mounded to account for future settlement.
- A distribution box will be required to promote even flow of effluent to absorption trenches

In summary, the disposal system will consist of a 1500-gallon, dual-chambered septic tank of either concrete or polyethylene construction. The primary disposal field and 100 percent reserve area will each require an area that is 30 feet wide by 65 feet long. Three absorption field trenches are to contain 55 feet of 4-inch diameter drainpipe with perforated inverts. Trenches are to be 60 inches deep and 18 inches wide and spaced on 10-foot centers as necessary. The drainpipe is to be installed at a depth of 2.5 feet below existing grade to allow for a minimum of 2 percent fall from the septic tank outlet to the distribution box. The required grade should be verified in the field by the contractor installing the system. The trenches are to be backfilled with 40 inches of drain rock (includes 6-inches of rock cover over drain pipe), with a layer of filter fabric over the drain rock, and a minimum of 20 inches of topsoil to bring the trenches up to existing grade. Trenches should be mounded with additional topsoil to account for future settlement. A distribution box will be required to promote even distribution of effluent to the trenches.

#### References:

Humboldt County Onsite Wastewater Treatment System Regulations and Technical Manual; Humboldt County Department of Health and Human Services, November 7, 2017.